Bay of Plenty District Health Board

Physician, Dr C

Medical Registrar, Dr D

A Report by the

Health and Disability Commissioner

(Case 10HDC00855)

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Executive summary

1. This report concerns the missed diagnosis of a hernia and bowel obstruction over the course of three days, in a patient admitted acutely under the medical team at Tauranga Hospital.

2. In mid 2010, Mrs A was referred acutely by her GP to Tauranga Hospital with concerns about vomiting and dehydration, the new onset of an irregular pulse, and a groin lump. Her abdomen was soft and non-tender, with normal bowel sounds. She was reviewed by a junior medical registrar, Dr D, and a consultant, Dr C, who provisionally diagnosed her with an abdominal malignancy. No differential diagnosis was documented.

3. The plan was to admit Mrs A for treatment with intravenous fluids, to discharge her once her nausea had settled, and to follow up with outpatient investigations. The day following her admission, Dr C was rostered to work out of Tauranga, so Mrs A was reviewed by Dr D alone. Dr D spoke with Mrs A's GP, who queried a diagnosis of hernia and expressed concern that the cause of the vomiting had not been found. Dr D did not inform his consultant of the GP's concerns.

4. Over the weekend Mrs A had no medical review for 27 hours, during which time her vomiting continued and her breathing deteriorated significantly. The on-call house officer diagnosed community-acquired pneumonia, and treatment for this was commenced at 8:20pm on the Saturday evening. However, there was a rapid deterioration in her clinical signs over the next two hours, and when the house officer arrived to review her again at 11:00pm, she vomited, aspirated, and went into hypoxic cardiac arrest.

5. A diagnosis of incarcerated femoral hernia[1] was made later during surgery. Sadly, Mrs A died from the severe hypoxic brain injury she suffered during her cardiac arrest.

Findings

6. Dr C did not take reasonable steps to ensure that he was adequately informed about Mrs A's history, and failed to recognise a hernia with bowel obstruction as a differential diagnosis for Mrs A's vomiting and groin lump. He thereby breached

[1] An abdominal hernia is a bulge or protrusion on an organ (usually a portion of intestine or abdominal fatty tissue) through an opening in the abdominal wall. "Reducible" hernias can be pushed back through the opening into the abdominal cavity. An "irreducible" hernia, also known as an "incarcerated" hernia, cannot be pushed back into the abdomen. Some incarcerated hernias may be chronic and without pain. Surgery is the only repair option to avoid potentially serious complications of bowel obstruction (symptoms of which include nausea and vomiting) from a mechanical blockage effect of the entrapped portion of intestine, and strangulation. A "strangulated" hernia is an irreducible hernia in which the entrapped intestine has its blood supply cut off (from pressure on the blood vessels as they pass through the constrictive opening in the abdominal wall). This is a surgical emergency as it can lead to gangrenous (dead) bowel.

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Right 4(1)[2] of the Code of Health and Disability Services Consumers' Rights (the Code).

7. Dr D failed to document an accurate history, and failed to appropriately relay to his consultant Mrs A's history and the GP's concerns of a possible hernia, significantly contributing to Mrs A's misdiagnosis. His communications with the GP and Mrs A's family were inadequate. He thereby breached Rights 4(1) and 4(2)[3] of the Code.

8. The Bay of Plenty District Health Board failed in its duty to provide an appropriate standard of care to Mrs A and breached Right 4(1) of the Code. The inadequate DHB clinical records and inconsistent and flawed clinical handover processes by staff involved in Mrs A's care breached Right 4(5) of the Code.

Complaint and investigation

9. Ms B complained to the Commissioner about the services provided to her late mother, Mrs A, at Tauranga Hospital, Bay of Plenty District Health Board (BoPDHB). The following issues were identified for investigation:

- *The standard of care provided to Mrs A by the Bay of Plenty District Health Board in mid 2010.*
- *The standard of care provided to Mrs A by Dr C in mid 2010.*
- *The standard of care provided to Mrs A by Dr D in mid 2010.*

10. An investigation was commenced on 10 June 2011.

11. Information was gathered from:

Ms B (on behalf of the family)	Complainant
Mr A	Consumer's husband
Bay of Plenty District Health Board	Provider
Dr C	Physician
Dr D	Medical registrar
RN E	Registered nurse, the surgical ward
RN F	Registered nurse, APU
RN G	Registered nurse, APU
Dr H	House officer
Dr I	General practitioner
The Coroner	

[2] Right 4(1) states: "Every consumer has the right to have services provided with reasonable care and skill."
[3] Right 4(2) states: "Every consumer has the right to have services provided that comply with legal, professional, ethical, and other relevant standards."

HDC

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Also mentioned in this report

Mr and Mrs J	Son and daughter-in-law of Mrs A
Dr K	House officer
Dr L	Night house officer

12. Independent expert advice was obtained from Dr David Spriggs, physician (see **Appendix A**), and Ms Jane Lees, nurse advisor (see **Appendix B**).

Information gathered during investigation

Mrs A

13. Mrs A was an active, independent, generally healthy 78-year-old woman with a past medical history of multiple epidermal cysts[4] of the neck, which had been diagnosed by fine needle aspirate in January 2010.

14. On Sunday evening, in mid 2010 (Day 1), Mrs A spoke on the phone to her daughter, Ms B, saying that she was "not feeling too bad" and had been for her usual 8km walk that morning. About an hour later, Mrs A started vomiting.

Assessments by GP

Day 2

15. On Day 2, Mrs A was seen by her GP, Dr I. Mrs A complained of vomiting and coughing overnight. Dr I had difficulty getting a precise history as to which was the prevailing symptom and recorded: "[Mrs A] is vague as to how much is cough and how much is vomit."

16. On examination, the only significant finding was a two-inch, non-tender groin lump. Dr I recorded: "Note 2 inch lump L inguinal area, non reducible ? hernia ? other, for u/s (ultrasound) initially."

17. Dr I advised HDC that Mrs A was unsure how long the lump had been present. Dr I said: "At that stage I wondered whether the groin lump was a hernia or something else (possibly malignancy) and decided the most appropriate investigation for this was an ultrasound."

18. Dr I made a referral for a private ultrasound, which was scheduled for Day 9, and prescribed antibiotics to treat the cough. Dr I said that she discussed with Mrs A the importance of oral fluids to maintain her hydration, and organised blood tests.

Day 3

19. Dr I reviewed Mrs A the following morning. Mrs A was still nauseated, but had not vomited that morning, and Dr I felt that Mrs A was improving. The lump was

[4] An epidermal (or epidermoid) cyst is a benign cyst usually found on the skin.

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unchanged from the previous day. The results of the blood tests indicated signs of infection with a raised white cell count, mildly abnormal liver tests, but normal sodium and kidney function. Mrs A was asked to return for review if she had not managed to hold down four glasses of fluid by mid-afternoon.

20. Mrs A's daughter, Ms B, advised HDC that on Day 4, Mrs A again vomited frequently.

Day 5

21. On Day 5, Mrs A consulted Dr I again. Dr I stated that Mrs A's condition had worsened. Mrs A reported her poor oral intake of fluids, and that she had vomited twice that day and was still coughing. Her pulse was irregular and around 54bpm (beats per minute),[5] her chest was clear and her abdomen was soft with no local tenderness. Her groin lump was slightly bigger, although it was still non-tender.

22. Dr I said that she was "very concerned" about Mrs A's health at that stage, so she arranged for Mrs A to be admitted to Tauranga Hospital. Dr I told HDC that at that stage "to be fair, [she] didn't make the diagnosis of hernia either" — but hernia was definitely on her differential diagnosis list.

23. After seeing Mrs A, Dr I telephoned Dr D, the on-call medical registrar at Tauranga Hospital, and outlined her concerns.

Dr D's background

24. Dr D graduated in 2006 with an MD from an overseas university. Prior to coming to New Zealand he worked for six months as an intern in medicine.

25. From mid 2008, Dr D was employed for two years as a house officer at Tauranga Hospital, during which time he worked in medicine, emergency medicine, paediatrics and surgery. He then commenced a position as a medical registrar at Tauranga Hospital and was enrolled on the Royal Australasian College of Physicians' training scheme.

26. Dr D's orientation period was four days, during which he worked alongside Dr C's outgoing registrar. Dr D assumed the solo position of medical registrar on the team in mid 2010.

27. Dr D's supervising consultant, Dr C, advised that this amount of clinical experience would not be unusual for a registrar in Tauranga, and that Dr D's experience of Tauranga Hospital itself was more than most others have when they start work as a registrar. Dr D had also worked with Dr C as his house officer for three months in 2008. Dr C stated: "I had not had any reason in my previous work with [Dr D] to have any concerns about his clinical judgment."

[5] Normal adult pulse rate is 60–100bpm.

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Referral and admission

28. Dr I then sent a referral letter to Tauranga Hospital and included the GP records of her past three consultations with Mrs A, including the reference on Day 2 to "? hernia". The referral letter stated:

> "Thank you for seeing [Mrs A] re the following problems (difficult historian)
>
> 1. Dehydration with ongoing vomiting/cough
> 2. New AF[6]
> 3. Groin lump."

Admission to the Assessment Planning Unit

29. At 1.11pm on Day 5, Mrs A arrived at the Tauranga Hospital Emergency Department. The Emergency Department adult assessment form recorded Mrs A's symptoms, including "new lump in L) inguinal region". Mrs A was admitted to the Assessment Planning Unit (APU).[7]

30. Mr A did not accompany his wife to the APU, because he was recovering from influenza and had seen a sign requesting that anyone with influenza symptoms was not to enter the area.

Assessment — Dr D

31. At 2.20pm, Mrs A was assessed by Dr D, who completed a standard printed Admission to Discharge Planner document. Under the heading "Reason for Presenting to Hospital", he wrote:

> "78 f. GP referral for vomiting and new onset AF."

32. Dr D documented a four-week history of cough, productive of clear sputum, reduced appetite with poor oral intake, and a one- to two-week history of vomiting once or twice a day with a normal bowel habit.

33. Under the heading, "Presenting Problems, Symptoms/Duration", Dr D wrote that Mrs A had mentioned some lumps on her neck and left groin, as well as some recent, but not significant, weight loss.

34. Dr D noted his examination findings as being that Mrs A had mild dehydration, an irregular heartbeat, and well circumscribed lumps in her right posterior neck and left groin (4cm diameter), which were mobile and non-tender. He noted that the abdominal examination was otherwise normal.

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[6] Atrial fibrillation — an abnormal heart rhythm characterised by an irregularly irregular pulse.

[7] The APU is a purpose-built 28-bed short-stay unit, located in close physical proximity to the Emergency Department. GP referrals triaged as 3, 4, or 5 are admitted directly to the APU where they are assessed, observed, admitted and treated for up to 36 hours before being transferred to an inpatient ward or discharged home.

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35. Dr D recorded in the Admission to Discharge Planner that "[Mrs A] has already an appointment for LN bx [lymph node biopsy] in [a private] Hospital".[8]

36. A chest X-ray was taken. Dr D did not record the findings but the formal radiologist's report found that there was no abnormality in the chest, and that "short air fluid levels [were] noted in the upper abdomen".

37. Dr D interpreted the admission ECG as showing atrial fibrillation at 90 beats per minute. The blood tests showed that Mrs A had low sodium of 116 mmol/L (normal range: 135–145) and a mildly raised white blood cell count.[9] The liver function tests were normal. Dr D recorded a "problem list" of:

> "— ongoing vomiting — mild dehydration,
>
> new AF,
>
> lumps — groin (L) + (R) and behind neck ?cancer".

38. At 4.15pm Mrs A vomited and was given intravenous metoclopramide.[10] At 5.30pm, Mrs A was reviewed by Dr C during his ward round of the day's new medical admissions.

Review by Dr C

Ward round structure

39. Dr C stated that the ward round was undertaken by the team outside of their rostered working hours, and its primary purpose was to identify patients requiring urgent care and investigation, and to make provisional diagnoses on which to base urgent care and further investigation.

40. Dr C explained that as he would not be in the hospital the next day, the afternoon ward round was "in some ways a substitution for seeing new patients at the morning ward round next day". He said he found time pressure a problem, because he kept the team back after hours and often the rest of the team would want to go home. This was one of the reasons for his usual practice of conducting a full consultant ward round on Friday mornings, when there was more time to consider each case.

41. On Day 5, Dr C's team's admitting period had been from 8.00am to 4.00pm. Dr C told HDC that the ward round went from around 4.30pm to 6.30pm, and on that day he saw eight patients. Neither Dr C nor RN G can recall whether any nursing staff were present during this ward round.

42. RN G said that there are often three or four ward rounds in APU occurring simultaneously, making it impossible for the nurse to attend all of them. Furthermore,

[8] The GP records included in the referral letter to Dr D indicated that Mrs A was booked for an ultrasound scan, not a biopsy.

[9] Her total white blood cell count was 13.6 (normal range 4–11). These were mostly composed of neutrophils (11.8), which usually indicates an acute infection.

[10] Antiemetic medication for vomiting and nausea.

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the nurse's priority is keeping all patients on APU safe (for example, keeping confused patients within sight), which may mean that the nurse cannot accompany the doctors behind a closed curtain.

Dr D's presentation

43. Dr C advised that standard practice and expectation is for junior doctors to take a history, review the GP referral, and synthesise the referral information in their presentation to the consultant on the ward round.

44. Dr C said that he did not read Dr I's referral letter and the clinical records himself. He stated that he cannot read each referral letter because of the time constraints on the afternoon round.

45. As was the usual practice, Dr D verbally presented Mrs A's history and his examination findings to Dr C. Dr C said that Dr D commented on the difficulty he had experienced in obtaining a history from Mrs A, and told him that Mrs A had been experiencing "flu like symptoms" for approximately four weeks, had a significant swelling in her groin "which had been present for some weeks", and had a runny nose, a cough and a poor appetite. Dr D reported that Mrs A had been vomiting one to two times per day for the past one to two weeks and had had a slight weight loss, but had no chest pain. Dr C said that Dr D did not mention that Dr I had queried whether Mrs A had a hernia.

46. Dr D confirmed that he was aware of Dr I's suggestion that Mrs A had a hernia, but said that, as hospital admitting doctors, "we go with our clinical judgment". He said that he feels it is unreasonable to be expected to address or investigate every differential diagnosis that GPs put forward.

Assessment

47. Dr C stated that following the registrar's presentation of the case, he said to Mrs A: "You tell me in your own words what is going on with you", but Mrs A struggled to provide a clear picture and appeared confused about details, such as the nature of the investigations her GP had booked for Day 9. Dr C stated that his ability to obtain a full history was impeded by the family not being present, so he was unable to speak to them about their concerns or obtain further history from them.

48. Dr C stated: "I also spent considerable time talking with [Mrs A] attempting to clarify the nature of the lump." He was not able to recall whether he discussed the vomiting with Mrs A, but said he was reassured because she had just eaten her dinner without experiencing any problems and, on examination, her abdomen was soft with normal bowel sounds, and the lump was not painful. Dr C stated: "Although it is clear in retrospect that the vomiting may have been more significant, the vomiting in the initial context was not a major problem, particularly as [Mrs A] had just had supper with no vomiting thereafter." Dr C said he assessed Mrs A for a groin lump that had been present for a month, which suggested that there was a chronic rather than an acute cause.

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49. Dr C's examination findings were documented as: "Significant LN [lymph node] on left groin, abdomen soft, non tender, pulse irregular." His impression was that Mrs A probably had a malignancy, likely a lymphoma or an intra-abdominal malignancy. Although his rationale is not documented in the clinical record, he informed HDC that this provisional diagnosis was based on what he understood to be a long history (one month) of a painless, firm, enlarged groin lump/lymph node, together with the findings of small lumps in the neck, recent weight loss,[11] and abnormal liver function tests.[12] He attributed the low serum sodium and "occasional vomiting" to the intra-abdominal pathology, but stated that "there were no features on examination to suggest [intestinal] obstruction and she was not acutely ill. My impression was that she required accelerated investigations to get a diagnosis but not any emergency investigations at that stage."

50. Dr C told HDC that, from the history he had been given, he "did not consider that the lump could be a hernia". He said that the registrar had not mentioned the GP's note "? Hernia"; however, if he had been given that information, he would have considered it to be significant. Dr C stated: "A hernia presenting under those circumstances is very uncommon and it is likely, at that stage, that many other doctors would have made the same misdiagnosis." In response to my provisional opinion, Dr C stated that he saw Mrs A only once, and made a provisional diagnosis only. He stated that Mrs A's presentation was not typical for a hernia with bowel obstruction. He submitted that Mrs A had been ill for a week, and that after that period of time any obstruction should have been obvious on physical examination.[13]

51. Dr C said that he anticipated being able to discharge Mrs A the next day, once she was rehydrated and her nausea had settled, for outpatient diagnostic investigations and follow-up. He asked Dr D to contact Mrs A's GP to obtain further history and to check what procedure had been booked for Day 9.

52. The plan recorded in the clinical notes was:

"— iv saline

— arrange for bx [biopsy] of L) inguinal lump → she has already an appointment for LN bx [lymph node biopsy] in [a private] Hospital[14]

+ repeat electrolytes + TFTs [thyroid function tests]

+ LDH, [beta] 2 microglobulin, SPEP [serum protein electrophoresis], Immunoglobulins, Ca, PO_4

[11] Dr D had recorded on the Admission to Discharge Planner: "She mentions some weight loss recently but not significant."
[12] The liver function blood test results attached to the GP referral from Day 2 showed an elevated ALT of 60 U/L (normal range 0–40) and AST of 63U/L (normal range 0–35). However, when repeated on admission on Day 5, all her liver function tests were within normal range.
[13] Mrs A became ill in the evening, four days previous.
[14] As above, Mrs A was booked for an ultrasound scan, not a biopsy.

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CT — abd[omen], BM [bone marrow] biopsy → depending on biopsy results

+ d/c [discharge] tomorrow on metoclopramide

+ call GP tomorrow."

Follow-up

53. Dr C had no further direct contact with Mrs A as he was rostered at a monthly clinic in another town on the following day. He said that he had previously tried to have this clinic changed, so as not to fall on his post-acute admission day, but had been told by management that no other day of the week was possible. He said that he would have found it very useful to have spoken to Mrs A's family, and noted that he would have been able to do this the following day, had he not been at the clinic.

Day 6

54. The overnight nursing note states that Mrs A slept on and off, had been given intravenous metoclopramide, and was still nauseated.

55. On Friday morning, Mrs A was reviewed by Dr D on his registrar's morning ward round, and it is documented that Mrs A felt better, although she was still nauseated, and that she had a cough with clear sputum, but did not require oxygen. The notes state: "Biopsy on [Day 9] at private hospital." The plan was to stop the oxygen and discharge Mrs A when her nausea settled.

56. RN G cannot recall going on the ward round that day. She said that she read Mrs A's notes to find out the treatment plan.

57. The nursing notes from 11.00am record that Mrs A was given metoclopramide for nausea with effect.

Dr D's conversation with GP

58. Dr I stated that Dr D telephoned her shortly before 10.00am on Day 6. Dr I recalled that Dr D told her that the groin lump was a likely lymphoma and he was organising a surgical biopsy. Dr I said she informed him that she had arranged an ultrasound for Day 9, as she was concerned that the lump might be a hernia.

59. Dr I stated:

> "We discussed the cause of [Mrs A's] vomiting and, from memory, I voiced my concern that she had not been fully investigated but he said he was reluctant to organise a CT scan of her abdomen at that stage as her abdomen appeared medically quiet. I understood from him that the possibility of a hernia had been eliminated. I recall being surprised (and voicing my concern) that given her level of unwellness, further investigation of her abdomen had not been performed, and at that stage of her admission she did not have a confirmed diagnosis."

60. Dr I's record of the conversation, made at 9.51am, states: "Med Reg Tauranga Hospital phoned, he thinks groin lump is lymphoma and is organising surgical biopsy.

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Na was low on admission. Discussed ?? cause of vomiting but he is reluctant to organise CT etc as abdo quiet??"

61. Dr D has no recollection of this conversation.

Conversation with family members

62. Dr D spoke to Mr A late in the morning. Mr A recalls that he told Dr D that Dr I thought Mrs A might have a hernia and had ordered an ultrasound. In the afternoon, Dr D talked to Mrs A's son and daughter-in-law, Mr and Mrs J. Mrs J recalls Dr D telling them that he thought Mrs A's groin lump was cancerous, and that he mentioned the lumps on Mrs A's neck. Mrs J said they told Dr D that Mrs A had previously had her neck lumps biopsied and they were all confirmed as being benign.

63. Mrs J said that they asked if the ultrasound could be done at Tauranga Hospital while Mrs A was there, to find out what was going on in Mrs A's abdomen, but Dr D said that this was not possible.

64. Mrs J further stated:

> "He also said there could be a blockage of the bowel and was talking about how [Mrs A's] stomach was swollen. We told him [Mrs A] was slurring her words and was lethargic and he told us she was just dehydrated. He said he would leave detailed notes for the doctor the next day."

65. In response to my provisional opinion, Mrs J said that she told Dr D that Mrs A had not had a bowel motion for two weeks.

66. Mr and Mrs J commented that, during this conversation, it appeared that Dr D was not listening to them. As an example, she said that she told Dr D that Mr and Mrs A had both had "the flu" recently, and Dr D repeated back that they had had a "gastro problem". Mrs A said that she corrected him, saying, "No, the flu", and again he said, "Gastro."

67. Dr D said that when he spoke to the family, they asked him to arrange an ultrasound, but in his view there was no indication for an urgent ultrasound of a suspected lymphoma at 5pm on a Friday afternoon. He stated that he and the team "never really considered hernia", but said that he probably would have told the family about the suspected lymphoma.

68. Dr D cannot recall talking to the family about a possible bowel obstruction. He stated that he felt Mrs A's abdomen five times, and on each occasion it was soft and non-tender. However, there is no documented abdominal examination of Mrs A from 5.30pm on Day 5 until after her cardiac arrest at 12.15am on Day 8.

Dr D's conversation with Dr C

69. Dr C said that he telephoned Dr D at around 12.00pm in between seeing patients at the outpatient clinic, to discuss the patients that had been admitted on Day 5, and to

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provide support and advice for his registrar, if required. Dr D cannot recall discussing Mrs A with Dr C.

70. Dr C recalls that Dr D told him that Mrs A had elected to stay in hospital, but did not mention his phone call to Dr I, or Mrs A having any ongoing or changed symptoms. No mention was made of vomiting, suspicion of bowel obstruction, or any further history obtained from the family. Dr C stated that he was led to believe, by the absence of any communicated information to the contrary, that Mrs A was stable.

71. Dr C stated that he did not specifically enquire about the outcome of Dr D's telephone call to Mrs A's GP, but said that he would have expected his registrar to have told him if the GP had voiced concern at the team's provisional diagnosis and plan, or had queried a hernia, so that a more urgent ultrasound or CT scan could have been considered.

Extent of vomiting

72. RN G stated that, by early afternoon, she thought Mrs A's condition had "settled a bit", and that Mrs A was "not vomiting at that time". The fluid balance chart records that Mrs A vomited at 4.00am, and three times between 1.30pm and 5.00pm.

73. Mr A stated that he arrived on the ward at 9.00am and observed his wife vomiting. He said that he was putting the full containers on the bedside stand, and the nurses would empty them when they came by. He said that the nurses came only every hour to hour and a half, and when there was no room left in the bedside table for full vomit containers, he started emptying them into the hand basin. He said that he was not given any information by the nurses about his wife's condition generally, and did not think to tell the nurses that he was emptying the containers himself.

74. RN G confirmed that all intravenous fluids prescribed and administered to Mrs A were recorded on a fluid balance sheet, which also recorded the frequency and volume of her vomitus. RN G stated that she never observed family members emptying vomit containers and, had she been aware that this was happening, she would have asked the family to leave it for the nursing staff.

75. The total volume of vomit recorded over 24hours from 8.00am on Day 6 was 1350ml. There is no record of urine volume and only 200ml of oral fluid intake recorded over that period. The dietitian recorded that Mrs A ate breakfast and lunch but "didn't keep either down".

76. RN G said that she spoke to Dr D in the early afternoon and expressed concern about discharging Mrs A because Mr A had told her that he did not feel he could cope with looking after Mrs A while she was still vomiting.

Weekend plan and handover

77. The medical record for Day 5 and Day 6 contains only a brief reference to Mrs A's history, and does not explain the diagnostic reasoning. There is no differential diagnosis documented, including no proposed diagnosis for the vomiting, and the clinical record repeatedly refers to a diagnosis of atrial fibrillation.

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78. The weekend plan written by Dr D at 3.00pm on Day 6 lists Mrs A's problems as "New AF, low sodium, left inguinal lymph node ?lymphoma ?underlying malignancy", and gives the team's plan for regular antiemetics, intravenous fluids, and discharge home when she was tolerating oral fluids and her vomiting had settled.

79. Dr D prepared Mrs A's electronic discharge letter before leaving on Day 6, with a view to her being discharged by the on-call house officer over the weekend. Dr D then began three weeks of leave. There is no record of Dr D handing over Mrs A's care to any weekend medical staff.

80. The on-call house officer, Dr H, expected that Dr D would have handed over to a registrar if he had had any concerns about a patient or wanted the patient reviewed over the weekend. Dr H stated that he "definitely" received no handover about Mrs A.

81. Dr D did not consult with the duty consultant (who was available to provide on-site cover for Dr C) about Mrs A. Mrs A did not receive a medical review during the next 27 hours.

Day 7

82. Mrs A continued to experience nausea and "bilious vomiting" from Friday evening until Saturday morning. Intravenous antiemetics were given regularly, but the vomiting continued.

83. Mr A arrived at 9.00am on Saturday. He said that he did not express any concerns to the nurses, but did ask to speak to the doctor.

84. At 10.00am, nursing staff paged the on-call house officer, Dr K, to review Mrs A. Dr K gave a telephone order for Stemetil (another antiemetic), but did not attend in person.

85. The fluid balance chart records that Mrs A vomited three times between 9.00am and 2.00pm, totalling 530ml. After 2.00pm there was no further vomiting. At 2.30pm, after requests by Mr A, Dr K was called again, and it is recorded that Dr K would see Mrs A "as soon as she can". RN G commented that staff were very stretched that weekend as the hospital was very busy, and the doctor would have had to prioritise the patients.

86. Mr A stated that, in the afternoon, Mrs A's breathing became wheezy and she was breathless. At 2.30pm, the nurse withheld further intravenous fluids until Mrs A was reviewed by a doctor, because Mrs A's "chest [was] very moist and she was short of breath".

87. At 5.15pm, the evening nurse, RN G, recorded that Mrs A passed a "medium soft" bowel motion.

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88. Dr H was the "long day" house officer[15] for medicine on Day 7. He recalls receiving a call from an APU nurse in the morning, requesting that he review Mrs A for possible discharge. He cannot recall being asked to review Mrs A for any other reason or being advised of any concerns. Dr H remembers that Saturday was particularly busy, and described it as "actually probably the busiest day I've ever had at work".

89. Dr H recorded his assessment of Mrs A at 6.45pm. He stated that he was expecting this to be a review prior to discharge, and he got Mrs A's background history by reading her notes. He said he understood that Mrs A had been admitted with a groin lump, which was thought to be lymphoma. Dr H said that he was "not made aware" either from the clinical record or any nurse, that vomiting had been a "major symptom", and the symptoms he observed were all chest related.

90. Dr H said that he found Mrs A to be obviously unwell and diagnosed pneumonia on clinical examination. He ordered blood tests and a repeat chest X-ray. Dr H said he told the APU nurses that he thought Mrs A should remain in hospital, as she was too unwell to go home.

91. RN G stated that Mrs A's observations were stable, she had a Modified Early Warning chart System (MEWS) score[16] of 1, and "[h]er blood pressure was low but she was okay". All her other vital signs were within normal limits. RN G took Mrs A to have a chest X-ray, and then took her to a surgical ward accepting medical overflow patients.

The surgical ward

92. Registered nurse RN E was assigned as Mrs A's primary nurse on the surgical ward. She was absent on her tea break when Mrs A arrived on the ward at 8.00pm and received no handover. RN E commented that the hospital was exceptionally busy that night and said that the ward nurses usually do get a handover from the APU staff. She stated that she "had to quickly scan [Mrs A's] notes" to get any information about Mrs A.

93. RN E said she understood that Mrs A had been admitted because she had respiratory problems that were not resolving, and she had a moist wet cough, and also some vomiting, nausea and weight loss.

94. RN E said that her first impression of Mrs A was that she was in respiratory distress. She was gasping and having trouble breathing, and was receiving oxygen via a mask.

Review by Dr H

95. Dr H reviewed Mrs A at 8.20pm. Dr H recorded that the chest X-ray indicated that Mrs A had a right middle lobe pneumonia. An arterial blood gas measurement showed that she had normal oxygen saturation of 97%. Dr H prescribed treatment for presumed community-acquired pneumonia, but recorded: "However if no

[15] The "long day" house officer works from 8.00am–10.00pm. There is also a "ward call" house officer who works from 8.00am–4.00pm (this was Dr K).

[16] See paragraph 100.

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improvement with following plan, consider addition of abx (antibiotics) to cover HAP (hospital acquired pneumonia)."

96. Dr H said that he discussed Mrs A's care with the on-call registrar, who reviewed her results electronically and viewed the chest X-ray. Dr H said that the registrar agreed with the diagnosis of pneumonia, and that Mrs A should be started on antibiotics and admitted to the ward. Dr H recalled that the registrar added Mrs A to his list of patients to review.

97. Dr H told HDC that, before going home, he handed over Mrs A's care to both the night house officer and the night registrar, because he was conscious of Mrs A's deterioration, that her diagnosis of pneumonia was different from her diagnosis at admission, that she had not yet been assessed by a registrar, and that he had just received a call from the ward nurse telling him that Mrs A now had an increased oxygen requirement.

Deterioration

98. The clinical records show that Mrs A's condition deteriorated from 9.10pm onward, with declining oxygen saturations while she was receiving 6L oxygen/minute via a mask, a rising heart rate, and a rising respiratory rate.

99. RN E told HDC that during this time she did not feel supported, and things were not happening as fast as she wanted them to. She said that she was very concerned about Mrs A's deteriorating condition. At 10.05pm, she called the family to come in, and she called the duty manager when the house officer was slow to respond. She said she did not consider calling the registrar directly herself, but said that if the same situation arose now, she would make an emergency resuscitation call.

MEWS

100. Tauranga Hospital uses a Modified Early Warning chart System (MEWS) to identify patients at risk of cardiopulmonary arrest, so that they may receive timely medical review at an early stage. Nurses fill in prescribed parameters of temperature, blood pressure, respiratory rate, heart rate, oxygen saturation and level of consciousness. The chart prescribes a score (0–3) for the results of each vital sign. On the reverse of the form, there is direction for the frequency at which observations should be taken and actions to be taken, according to the patient's MEWS score. The chart directs nurses to "call for help or advice immediately" if there is a score of 3 in any single parameter or a total score of 4 or more (maximum score possible is 11). After hours, the on-call house officer is to be called. The chart states: "If no response or unable to attend in 30 minutes call Registrar or MOSS, if still no response or unable to attend in 30 mins call On Call Consultant."

101. Mrs A's MEWS score at 9.10pm was 5. At 9.30pm, the house officer was paged. By 10.00pm, the MEWS score had risen to 6, and the house officer was paged again. At 10.30pm, the MEWS score was 8, and Mrs A's blood pressure and temperature were falling.

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Review by Dr L

102. At 11.00pm, the night house officer, Dr L, reviewed Mrs A. Dr L recorded that Mrs A's condition was worsening. Her oxygen saturation was 85% on 15L/min oxygen, and she had cold clammy peripheries and a warm trunk, her blood pressure was 102/50mmHg, and her pulse was 117bpm. After a telephone consultation with the registrar, it was decided to trial BiPAP.[17]

Arrest and surgery

103. At 11.30pm, just as BiPAP was about to be commenced, Mrs A vomited and went into respiratory arrest, and then cardiac arrest.

104. The anaesthetic registrar attending the cardiac arrest call found that Mrs A's airway was full of bilious vomitus. A nasogastric tube was inserted and approximately one litre of vomitus was immediately drained from Mrs A's stomach. Resuscitative measures achieved a return of spontaneous circulation after 12–15 minutes, and Mrs A was transferred to the intensive care unit.

105. On Day 8, a CT scan, followed by surgery, confirmed a diagnosis of incarcerated femoral hernia with viable bowel. Unfortunately, it became evident that Mrs A had suffered a severe hypoxic brain injury.

106. Mrs A was extubated and, sadly, died at Tauranga Hospital a few days later. The cause of her death, noted on the Coroner-authorised Autopsy Medical Report, was hypoxic brain injury secondary to aspiration pneumonia.[18]

Subsequent events

107. The discharge letter that Dr D had prepared on Day 6, before going on leave, was received by Dr I by facsimile the day following Mrs A's death. The letter indicated that there was a planned forthcoming ultrasound scan, biopsy of the groin lump, and outpatient clinic follow-up. The clinical summary concluded that "there is a suspicion of underlying malignancy (?colon ca)/lymphoma. Her AF was considered secondary to hyponatraemia.[19] Discharged when vomiting settled and tolerating [oral] fluids." There is the word "Deceased" next to "Discharge status".

108. The DHB's ward checklist for notification of death states that the discharge letter was not sent. There is no indication from the discharge summary or the records as to who sent the discharge summary to Dr I.[20]

109. Dr I said that when she met with the family following Mrs A's death, she felt "embarrassed" that she had so little information to give them about Mrs A's hospital course.

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[17] BiPAP (Bilevel Positive Airway Pressure) is a portable ventilator.

[18] Aspiration pneumonia is pneumonia caused by inhaled foreign material (in Mrs A's case, vomitus) lodging in the lungs and causing lung infection. Mrs A was vomiting because her incarcerated hernia was causing bowel obstruction.

[19] Below normal sodium levels in the blood.

[20] Dr D was on leave when the discharge summary was sent.

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110. Dr I received another copy of the discharge summary, this time with a brief handwritten note added to the bottom by Dr C's house officer, stating that Mrs A arrested over the weekend with aspiration pneumonia, was transferred to ICU and had her femoral hernia repaired, but died of hypoxic brain injury.

111. Dr D advised HDC that on his return from leave, he was shocked to hear of Mrs A's death but, as his consultant had already apologised on behalf of the team, he did not contact the family directly himself. Dr D acknowledged that the team had made a diagnostic mistake, but said that he did not feel he had done anything wrong, stating: "I feel I did everything I could."

Subsequent actions

112. Since this case, Tauranga Hospital has taken the following actions:

- Conducted heuristic training and Grand Round presentations of Mrs A's case.
- Extended the rostered Emergency Department senior medical officer cover until 11.30pm, seven days per week.
- Dr C's clinic day has been changed so that it is not on Friday.
- An extra nurse who is dedicated to working up GP referrals has been appointed in the APU between 11.00am and 7.00pm.
- The APU's initial nursing assessment form is being reviewed so that, rather than "ticking boxes", annotations can be made to provide a more comprehensive record of the assessment.
- The APU clinical team's processes are currently under review and are being rewritten as Standard Operating Procedures.

113. Dr C advised that he has made changes to his practice, including always reading GP referral letters rather than relying on the registrar's synthesis, and carrying out on-going reviews of his patients' differential diagnoses.

114. Dr C said that he has recommended to BoPDHB management that there be regular meetings between the departments of medicine and surgery to improve the interface between the two departments, and that there be two consultants rostered in the weekends to allow more time for patient review (thus not leaving management of changing/deteriorating patients entirely up to junior staff).

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Responses to provisional opinion

Dr C

115. Dr C submitted that his actions were reasonable in the circumstances because it was reasonable for him to rely on Dr D. Dr C stated that he had good reasons to believe the registrar was competent to review Mrs A's file and convey information to him. He stated that the ability to read, synthesise, and communicate information is a basic skill expected of any junior doctor.

116. Dr C submitted that his reasons for believing the registrar was competent were that Dr D had worked as a doctor for three and a half years and had been accepted into the Royal Australian College of Physicians' training scheme. In addition, Dr C said he had worked with Dr D for three months in 2008, while Dr D was a house officer, and had found him to be thorough and competent.

117. Dr C submitted that it was reasonable to fail to diagnose the hernia because he saw Mrs A only once, her presentation was atypical, and medical literature suggests that 25–30% of incarcerated hernias are missed. In addition, he said he was no longer responsible for Mrs A after Day 5.

118. Dr C also submitted that the reasonableness of his actions should be viewed in light of the resource constraints under which he worked, including time constraints, which made it difficult to read the GP referral letter and the clinical records. He said that there would be significant implications if consultants were expected to read referral letters and clinical records.

Dr D

119. Dr D made no comment.

The family

120. The comments from the family have been incorporated into the "facts gathered" section of the report.

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121. The DHB accepted that, as a result of a number of systems issues, it failed to provide Mrs A with an appropriate standard of care.

122. The DHB will be using the Grand Round as a forum for multidisciplinary case review for shared learning between surgery and medicine.

123. The DHB is commencing consultation for the development of a new model for acute medicine.

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Relevant standards

124. The Medical Council of New Zealand's publication *Good Medical Practice. A guide for doctors* (June 2008) is the foundation document for core standards of clinical competence, cultural competence and ethical conduct for doctors in New Zealand.

Relevant excerpts relating to "good clinical care" include:[21]

"3. In providing care you are expected to:

- recognise and work within the limits of your competence
- consult and take advice from colleagues when appropriate
- keep colleagues well informed when sharing the care of patients
- be readily accessible when you are on duty. Depending on the situation, this may mean you are accessible to patients, or it may mean that you are accessible to colleagues or a triage service
- provide effective treatments based on the best available evidence
- make good use of the resources available to you
- take steps to alleviate pain and distress whether or not a cure is possible
- respect the patient's right to seek a second opinion."

Relevant to working in teams

"38. Most doctors work in teams with a wide variety of health professionals and non-medical health and disability workers. Working in teams is likely to become even more common in the future. Working in teams does not change your personal accountability for your professional conduct and the care you provide. In all dealings with team members, doctors must act in, and advocate for, the best interests of the patient.

39. When working in a team:

- respect the skills and contributions of your colleagues
- communicate effectively with colleagues both within and outside the team
- make sure that your patients and colleagues understand your responsibilities in the team and who is responsible for each aspect of patient care
- participate in regular reviews and audit of the standards and performance of the team, taking steps to remedy any deficiencies
- support colleagues who have problems with performance, conduct or health
- share information necessary for the continuing care of the patient."

Relevant to clinical record keeping:[22]

"You must keep clear and accurate patient records that report:

[21] At page 6. Available online at http://www.mcnz.org.nz/portals/0/guidance/goodmedpractice.pdf.
[22] Ibid at page 6.

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- relevant clinical findings
- decisions made
- information given to patients
- any drugs or other treatment prescribed.

Make these records at the same time as the events you are recording or as soon as possible afterwards."

Opinion: Breach — Dr C

Diagnosis

125. Dr C saw Mrs A once, on Day 5. Dr D presented Mrs A's case to Dr C verbally. Dr D told Dr C that Mrs A had been experiencing "flu like symptoms" of a runny nose, cough and poor appetite for approximately four weeks, had a significant swelling in her groin "which had been present for some weeks", had been vomiting one to two times per day for the past one to two weeks, and had some slight weight loss, but had no chest pain. Dr D did not mention that Dr I had queried whether Mrs A had a hernia.

126. Following Dr D's verbal presentation of the case, Dr C asked Mrs A to explain in her own words "what [was] going on" with her. He was able to obtain only limited information from her about her presentation, because of her confusion. The referral letter and clinical records contained relevant information about Mrs A, but Dr C did not read Dr I's letter of referral, despite his difficulty obtaining information from Mrs A, and so he made his provisional diagnosis relying on incomplete information. He erroneously concluded that Mrs A was presenting with a chronic, one-month history of non-specific flu-like symptoms and a groin lump. Information to the contrary was accessible from the GP letter and clinical records, which made it clear that Mrs A was suffering from an acute four-day illness of vomiting, leading to dehydration and hyponatraemia. The referral letter also revealed that Dr I had arranged for an ultrasound scan of a groin lump she had discovered three days earlier, on the suspicion that it might be a hernia.

127. Dr C stated that he cannot read every referral letter because of time constraints. However, in this case, he "spent considerable time talking with [Mrs A] attempting to clarify the nature of the lump". Furthermore, Dr C was aware that Mrs A was not able to provide a clear history, and so would be unable to correct any inaccuracies in the information supplied by Dr D, and no family members were present to assist. In response to my provisional opinion, Dr C submitted that resource constraints prevented his reading the referral letter and clinical records, and that to expect consultants to do so would have significant resourcing implications. I do not accept Dr C's submission. I am not suggesting that consultants will always need to personally read back through all of the clinical records. However, consultants need to use their judgement whether, in a particular case, they have sufficient information on which to base a diagnosis, or whether they need to take steps to obtain more

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information. Failure to read the notes is a common theme in failed care. Dr C spent considerable time with Mrs A. He found her to be a difficult historian and he was concerned about the lump. I remain of the view that in the particular circumstances of this case, it was suboptimal for Dr C to have failed to refer to the records for clarification.

128. Dr C said he expected that Dr D would have presented all relevant information pertaining to the referral. Dr C stated that he was not informed about Dr I's suspicion that Mrs A had a hernia. Dr C said he attempted to clarify with Mrs A the information about the lump and the planned investigations, but he was unable to obtain sufficient information from her.

129. I accept that the expectation of a registrar is to be able to synthesise information and present it to the consultant accurately and in a coherent manner. However, as the specialist responsible for the overall clinical care and management of Mrs A, it was Dr C's duty to ensure he had all relevant information about Mrs A. In these circumstances where Dr C was unable to clarify Mrs A's history, the nature of the lump, and the planned investigations Dr C should not have relied on Dr D to the extent he did, and should have specifically enquired about the GP's reason for referral and/or read the GP referral letter himself.

130. Dr C came to a working diagnosis of lymphoma/malignancy. My expert advisor, Dr Spriggs, advised me that this diagnosis was unlikely to be sound. Dr Spriggs stated that Mrs A's major problems, which were vomiting and a lump in the groin, suggested a bowel obstruction with a hernia. He said that although Mrs A's bowel sounds were normal and her abdomen was not distended, abdominal distension is not always present with bowel obstruction. In response to my provisional opinion, Dr C's lawyer referred to academic literature[23] that states that "in all patients with abdominal pain and vomiting, a thorough examination of the hernial orifices must be carried out", and notes that approximately one-third of patients do not complain of any symptoms referable to the hernia itself.

131. Dr Spriggs advised that a competent physician could reasonably be expected to consider a differential diagnosis of bowel obstruction with a hernia in any patient admitted with vomiting and a lump in the groin. This standard applied even taking into account that Dr C, as a specialist physician, was inexperienced with femoral hernias, and that Mrs A's symptoms on admission were not typical signs for an incarcerated hernia, as she had normal bowel sounds and a lack of abdominal distension.

132. Dr Spriggs commented that physicians see many cases of vomiting and should be able to assess them appropriately. If the cause was uncertain, a referral to the surgical services would be expected. Dr Spriggs noted that if Dr C felt that the vomiting was due to lymphoma, the mechanism of that vomiting was not described, particularly as Dr C felt certain that there was no intestinal obstruction. Although Dr C has since said

[23] Heys & Brittenden, "Strangulated femoral hernia: the persisting clinical trap" (1991) 67 Post grad Med 57–59.

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that the diagnosis of lymphoma/malignancy was not certain, he did not propose any other differential diagnosis as a result of the consultation.

133. Dr Spriggs stated: "I believe most of his peers would consider this oversight to be indicative of a suboptimal standard of care", and that "it seems that the clinicians continued to hold onto the initial diagnosis despite increasing evidence that it was not tenable". Dr Spriggs is of the view that Dr C's diagnostic error was a moderately severe departure from the expected standard of care.

134. I note Dr Spriggs' advice that Dr C could reasonably have been expected to consider a hernia as a diagnosis with any patient admitted with vomiting and a lump in the groin. In my view, despite the inadequacy of the information supplied to him by Dr D, Dr C should have considered the possibility of a hernia.

135. I find that Dr C did not take reasonable steps on Day 5 to ensure he was adequately informed about Mrs A's history in light of Dr D's inexperience and Mrs A's inability to recount her history. Dr C did not consider relevant differential diagnoses, and failed to consider the possibility of a hernia, despite Mrs A having been admitted with vomiting and a lump in her groin. Accordingly, in my view, Dr C failed to provide care to Mrs A with reasonable care and skill and breached Right 4(1) of the Code.

Opinion: Adverse Comment — Dr C

136. Dr C asked Dr D to contact Dr I on Day 6 to obtain further history and to check which procedure had been booked for Day 9. Dr D spoke to Dr I, who repeated her concern about a possible hernia.

137. Dr C was unable to review Mrs A on Day 6 because he was at his monthly clinic. He relied on Dr D to reassess the team's patients and communicate appropriate information to him by telephone. When Dr C spoke to Dr D, he did not enquire about the registrar's conversation with Dr I that he had instructed him to undertake, or about Mrs A's presentation that day, such as whether she was continuing to vomit. Dr C stated that, from the absence of information to the contrary, he believed that Mrs A was stable.

138. Given the particular circumstances of Mrs A's case, I consider that Dr C should have asked more targeted, appropriate questions on Day 6, to ensure Dr D had assimilated the information from Mrs A's GP, her family, and the clinical records. Had Dr C done so, he could have guided Dr D to consider relevant differential diagnoses.

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Opinion: Breach — Dr D

Introduction

139. As noted previously,[24] Dr D had worked at Tauranga Hospital as a junior doctor for two years prior to this event. His registrar orientation period was of four days' duration, during which he worked alongside Dr C's outgoing registrar. When Dr D assumed the position of solo medical registrar on the team, Day 5 was his seventh day on duty as a solo medical registrar. I accept that Dr D's experience as a registrar was limited.

Communication with Dr C

140. Despite his inexperience as a medical registrar, the expectation of Dr D is that he would be able to synthesise information and present it to the consultant accurately and in a coherent manner.

141. Dr I set out in her referral letter of Day 5 that the three issues of concern were dehydration with ongoing vomiting/cough, new atrial fibrillation, and a groin lump. The notes of the consultations for Day 2, Day 3 and Day 5 were all included in the letter. Reference is made in each of those consultations to Mrs A having a groin lump and, on Day 2, Dr I queried whether Mrs A had a hernia. In addition, it was evident from the referral letter that an ultrasound scan had been arranged.

142. However, when Dr D presented the history to his consultant, Dr C, on Day 5, he told him that Mrs A had been experiencing "flu like symptoms" of a runny nose, cough and poor appetite for approximately four weeks, and had a significant swelling in her groin "which had been present for some weeks". Dr D reported that Mrs A had been vomiting one to two times per day for the past one to two weeks, and had some slight weight loss, but had no chest pain.

143. Dr D did not mention that Dr I had queried whether Mrs A had a hernia. Dr C formed the view that the lump had been present for a month, and was unaware that an ultrasound scan had been arranged for Day 9.

144. Dr I said she told Dr D on Day 6 that she suspected that Mrs A had a hernia, and advised him that she had organised an ultrasound scan to investigate this (as was indicated in the referral letter). However, Dr I understood from Dr D that the possibility of a hernia had been eliminated, and that he did not feel an abdominal CT scan was clinically indicated at that stage. Dr I recalled being surprised by this and voicing her concern to Dr D that Mrs A's abdomen had not been fully investigated, given her level of unwellness and her vomiting.

145. Dr D does not recall this conversation. I am satisfied that Dr I's account is an accurate representation of the phone call from Dr D, as it is consistent with the record she made on Mrs A's file at 9:51am on Day 6.

[24] See paragraph 25.

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146. Dr D failed to inform Dr C, when speaking to him at around midday on Day 6, of Dr I's repeated suggestion of hernia and her concern at the team's working diagnosis and proposed management.

147. In addition, Dr D did not inform Dr C of the further history obtained from the family that Mrs A's neck lumps had previously been diagnosed as benign, and their concern about her ongoing vomiting.

148. As discussed above, the working diagnosis of lymphoma/malignancy on Day 5 and Day 6 was not feasible and was incorrect. In my opinion, Dr D's failure to communicate important information both verbally and in the documentation contributed significantly to the persistence of this diagnosis.

149. This case clearly demonstrates the importance of the expertise of an experienced general practitioner who has known and seen a patient over several years, and is among the best placed (along with family) to notice changes in that patient. Where a GP refers a patient to a secondary hospital, the expectation is that there will be a specialist consultant assessment in response to the GP's concerns.

150. Junior doctors assessing patients on behalf of the consultant must recognise and work within their limitations and level of experience. In my opinion, even if a registrar disagrees with a GP's clinical rationale, the registrar must clearly present that rationale to the consultant. Without this full information, the specialist cannot respond to the GP's referral appropriately. Similarly, when junior medical staff communicate with GPs (for example, by phone call or by discharge letter), the clinical advice and diagnostic information given should accurately reflect the consultant's specialist opinion.

151. In this case, Dr I knew Mrs A's history well. She had referred Mrs A to hospital after having reviewed her over the previous three days. Dr D was a junior registrar who had never met Mrs A previously. He had difficulty obtaining a clear history from her, and should therefore have taken Dr I's referral letter and differential diagnosis into account. However, from his written documentation, and the history he presented verbally to Dr C on Day 5 and Day 6, there is no indication that he did so.

152. I note that Dr D told HDC that he does not feel it is reasonable for him to have to explore every differential diagnosis that GPs put forward. What was required was that he fully and accurately inform the consultant of Dr I's query as to whether Mrs A had a hernia.

153. Similarly, family members reported that on Day 6 they asked Dr D whether Mrs A had a hernia. They say they requested that she have an ultrasound at the hospital to exclude a hernia and informed Dr D that the neck lumps were not cancerous. Dr D said that the team had no suspicion of a hernia, so he told the family that an urgent ultrasound was not indicated at that time.

154. Mrs J said that Dr D told her that there could be a blockage of Mrs A's bowel. However, Dr D does not recall mentioning bowel obstruction to the family and stated

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that, on each of the five occasions he examined Mrs A's abdomen, he found no signs of obstruction, and the abdomen was soft and non-tender.

155. I am concerned by Dr D's apparent unwillingness to take the family's concerns into consideration. I note that Ms B reported that "his attitude was that you would tell him something and he wouldn't listen". This is another example of Dr D's failure to appropriately synthesise relevant information.

156. I find Dr D's attitude to the family's and Dr I's concerns to be unsatisfactory. In my opinion, his failure to take into account and inform his consultant about the concerns of the GP and family materially contributed to Mrs A's misdiagnosis.

157. I note that there was a duty consultant on site who was available for Dr D to seek advice from during Dr C's absence. However, Dr D did not discuss Mrs A with the duty consultant, despite the fact that Mrs A's vomiting was continuing whilst she was on anti-emetics. Dr D also failed to discuss this with Dr C, who was available by telephone.

158. In order to provide services to Mrs A with reasonable care and skill, Dr D needed to obtain relevant information from Mrs A, her family, and Dr I. In addition, he needed to carefully consider the referral letter, the accompanying information, and the ED records. All this information should have been accurately synthesised and communicated to Dr C and taken into account when considering the differential diagnoses. When Mrs A's condition failed to improve, Dr D should have reconsidered the tentative diagnosis of a malignancy and sought assistance, either from the on-call consultant or Dr C.

159. In my view, Dr D's failures to gather the necessary information and adequately inform Dr C, together with his failure to seek assistance when Mrs A's condition did not improve, meant he did not provide services to Mrs A with reasonable care and skill. Accordingly, Dr D breached Right 4(1) of the Code.

Documentation

160. The medical records associated with Dr I's referral letter stated that an ultrasound had been ordered, but Dr D recorded in the Admission to Discharge Planner that "[Mrs A] has already an appointment for LN bx [lymph node biopsy] in [a private] Hospital".

161. My expert advisor, Dr Spriggs, commented that the history Dr D documented in Mrs A's clinical notes was cursory, there was no proposed diagnosis of the cause of the vomiting, his documented diagnosis of atrial fibrillation was incorrect, and there is no documentation of the chest X-ray. Although Dr D stated to HDC that he examined Mrs A's abdomen five times, there is no documented abdominal examination of her from 5.30pm on Day 5, until after her cardiac arrest at 12.15am on Day 8.

162. Dr D failed to document his conversations with Dr I and Mrs A's family on Day 6, during which new, clinically relevant information was discussed (such as the predominance of vomiting, suspicion of a hernia, and the diagnosis of the neck lumps). These deficiencies in documentation were particularly significant, as Dr D

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was about to commence three weeks' leave. At that time, Mrs A's course was not on the expected track, as the team had expected that her vomiting and nausea would be under control for a Friday discharge. Comprehensive documentation was particularly important because Dr D did not verbally hand her care over to the weekend staff, who relied on the documentation to inform them about Mrs A's case.

163. For these reasons I find that Dr D failed to meet professional standards of documentation and thereby breached Right 4(2) of the Code.

Opinion: Breach — Bay of Plenty District Health Board

164. BoPDHB had a duty to provide Mrs A with services of reasonable care and skill, which complied with professional standards and ensured quality and continuity of care across medical and nursing services on the APU and the surgical ward.

Nursing services

165. Nursing has a vital role to play in supporting patients and advocating for them with other health care professionals, through the provision of relevant, accurate, clinical information. Appropriate nursing observations and assessments are critical to the provision of such information.

166. The family reported seeing a nurse only every 60 to 90 minutes. Mr A told HDC that he had to empty vomit containers himself, as Mrs A was filling them faster than the nurses were visiting the bedside. It seems probable to me that the nurses were unaware that this was occurring. This resulted in inaccurate recording of the extent of Mrs A's vomiting. I note that my expert nursing advisor, Ms Lees, recommended prescribed hourly or half-hourly rounding as one way that nurses can ensure they are supporting their patients and patients' families.

167. I find it more likely than not that the severity of Mrs A's vomiting was not recognised or recorded. Unfortunately, this is likely to have had an adverse effect on Mrs A's care. The extent of Mrs A's vomiting was vital information with regard to recognition of the need to revise the untenable provisional diagnosis of lymphoma, and alerting clinical staff to the possibility of bowel obstruction. I note, for example, that RN E incorrectly understood from the clinical record that Mrs A's primary reason for admission was respiratory problems. Dr H was also not aware that vomiting had been a predominant symptom. Had he been alerted to this, the correct diagnosis of aspiration pneumonia rather than community-acquired pneumonia, which is treated differently, may have been considered.

168. The failure to escalate Mrs A's care on the night of Day 7, as per MEWS protocol, was a further instance of poor care. The instructions on the MEWS sheet state that should the score deteriorate, nurses should "call for help or advice immediately" if the score is greater than or equal to 4. Mrs A had a MEWS score of 5 at 9.10pm, and this reached a maximum of 8 within the next hour and a half. Dr Spriggs advised that this

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should have prompted the nursing and junior medical staff to call for senior assistance. However, despite being called at 9.30pm and 10.00pm, it was 11.00pm before Mrs A was seen by a first-year house officer.

169. The nurse involved, RN E, stated that she felt unsupported and that things were not happening quickly enough. She called the duty manager when the house officer was slow to respond, but Mrs A still was not provided with a timely medical assessment by a sufficiently senior doctor. I note that RN E stated that she would now act differently and make a resuscitation call if the same situation occurred.

Consultant reviews

170. Additionally, I have significant concerns about the lack of consultant-level care Mrs A received from BoPDHB while she was in the APU, despite the fact that a consultant was available on site to review her.

171. Mrs A was admitted on a Thursday, and saw Dr C at 5.30pm that evening. There was no planned consultant review for the following three days, as the DHB had scheduled Dr C to be at his monthly clinic on the Friday. I note that although there was a duty consultant on site who was available for Dr D to consult on the Friday, it was not hospital policy for this consultant to perform a post-acute ward round of Dr C's patients.

172. In my view, in a situation where the registrar is inexperienced, an appropriate standard of hospital care would include consultant review the day after instigating treatment, to assess the appropriateness of treatment, and to revisit the diagnosis as necessary.

173. Instead, on Day 6 Mrs A was reviewed by an inexperienced first-year registrar with a heavy patient caseload.

174. It is clear that Dr D did not recognise that he should speak to the duty consultant about Mrs A. Dr C pointed out that if he had not been rostered for the clinic and therefore able to conduct a ward round the next day, he would have seen Mrs A's family, and her care may have been managed differently.

175. BoPDHB was aware of this situation. Dr C had previously asked for his Friday clinic to be shifted so as not to fall on his post-acute admission day, but this request had been declined by the DHB. It is not satisfactory to have a system in which acute patients admitted on a Thursday would not have a consultant review until Monday, and it is not adequate care to rely on a junior registrar recognising the need for review by the on-call consultant. In addition, there was no clear mechanism to have Mrs A reviewed by a consultant on the weekend, if the registrar did not pick up a problem on the Friday.

176. I find that BoPDHB failed in its duty to provide an appropriate standard of care with regard to the nursing care and consultant reviews of Mrs A, and therefore breached Right 4(1) of the Code.

HDC

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177. I note that since this incident, BoPDHB has rescheduled Dr C's clinic, so that he is now available on site at Tauranga Hospital on post-acute days.

Documentation

178. This Office has frequently emphasised the importance of record-keeping. Baragwanath J pointed out in his decision in *Patient A v Nelson Marlborough District Health Board*[25] that it was desirable that the law should in future impose on doctors an obligation to establish and maintain a written and signed record. This Office has stated:[26] "In my view this applies to all health professionals who are obliged to keep appropriate patient records … the failure to record … is poor practice, affects continuity of care, and puts patients at real risk of harm."

179. In the hospital setting, patients are cared for by teams of health providers. The clinical record is essential — it stores and communicates relevant information about the patient. It is a tool for management, and for communication between doctors and other health professionals, and has become the primary tool for continuity of care in hospitals. In order to fulfil these functions, the medical record must be comprehensive and accurate.

180. The medical record was of particular importance in Mrs A's case because it was the only means of clinical handover at many stages of her care. For example, nurses unable to attend ward rounds relied on it as a means of informing themselves about the plan and orders for Mrs A. Dr H relied on it when he was asked to see Mrs A on Day 7, as there was no nurse available, and RN E relied on it as her only source of nursing handover when Mrs A was transferred to the surgical ward.

181. My expert advisor, Ms Lees, said that the APU nursing assessment at admission was incomplete and should have included a more detailed, comprehensive nursing assessment, targeted at Mrs A's presenting symptoms, rather than simply a "tick-the-box" style record. Ms Lees advised that the nursing documentation from Day 5 to Day 7 lacked depth and substance, particularly with regard to nursing actions that were or were not completed, and the information shared between staff in response to Mrs A's presentation and her deteriorating clinical picture. For example, the on-call house officer was paged at 10.00am but Mrs A was not seen until several hours later. It is unclear whether there was any follow-up after the initial call or any escalation to the senior nurse. Two of the nurses' signatures were not legible, and the fluid balance chart was poorly completed.

182. In my opinion, the overall standard of Mrs A's clinical record was inadequate. The family's accounts of events differ from the recall of staff in several areas. These include whether the family reported to nurses their concern about Mrs A's swollen stomach, and how frequently nurses reviewed Mrs A (the family report that review was at only 60–90 minute intervals).

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[25] *Patient A v Nelson Marlborough District Health Board* (HC) BLE CIV–2003–406-14, 15 March 2001.
[26] Opinion 08HDC10236.

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183. The medical documentation from Day 5 and Day 6 is also inadequate. The history is cursory and the diagnostic reasoning not explained. There is no differential diagnosis documented, including no proposed diagnosis for the vomiting. The clinical record repeatedly refers to an incorrect diagnosis of atrial fibrillation. Dr Spriggs advised that the admission ECG in fact showed sinus rhythm with supraventricular ectopy and left anterior hemi-block. Dr C has agreed with this, commenting that this is a rhythm requiring no specific treatment.

184. The content of the discharge summary is unsatisfactory and provided insufficient information. The repeat copy sent to Dr I with the house officer's handwritten addition was delayed, difficult to read, did not alter any of the incorrect typed information, and was not recorded on the clinical record.[27]

185. I find that there was poor documentation overall, from a number of health providers employed by the DHB. In my view, BoPDHB failed to ensure that its staff met professional standards of clinical documentation for Mrs A.

Communication and handover

186. Mrs A received care from a number of nurses and doctors while in the APU and the surgical ward. In my opinion, her care did not meet expectations of seamless team-based secondary hospital care. Communication processes between the staff involved in Mrs A's care appear inconsistent and created risk where there was reliance on the written clinical record, which was not of a high standard (as discussed above).

187. My first concern is that APU nurses did not consistently attend medical ward rounds. RN G informed HDC that there are often three or four ward rounds in APU occurring simultaneously, making it impossible for the nurse to attend all of them, and said that they rely on the notes for information. In my opinion, this is suboptimal. As recommended by my nursing advisor, "consistent nursing presence on the medical ward rounds with a process to share relevant information to the nurse allocated to the patient should be considered".

188. In Mrs A's case this was particularly relevant, as her presenting history was unclear to the medical team and it is apparent that Dr C's team did not appreciate the significance of vomiting as Mrs A's predominant presenting symptom. In such cases, direct nursing input into the medical reviews could have clarified this misperception.

189. Secondly, the handover practices between nursing staff in this case are of concern. There was no personal handover between the APU and surgical ward nurses when Mrs A was transferred to the ward. RN E had to rely on the clinical notes for a handover and was misinformed of Mrs A's presenting problems.

190. As confirmed by my advisor, Ms Lees, bedside handover would have offered a comprehensive and consistent approach to nursing handover. This improves the quality of communication between nurses at shift change as it also involves the patient and any family present.

[27] See paragraphs 107–110.

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191. There were also communication deficiencies between the nursing staff and on-call medical staff on Day 7, when nurses were calling for medical review from the on-call house officer, and Mrs A's care was not escalated in a timely manner.

192. Dr H recalls being called on Saturday morning by an APU nurse to review Mrs A for prospective discharge. He does not recall any clinical concerns or sense of urgency being communicated to him at that time. He did not attend until several hours after the call and, when he eventually saw Mrs A, he found her to be very unwell, yet received no briefing from Mrs A's primary nurse. It does not appear that nursing staff had contacted him since the call in the morning.

193. Later in the evening, when Mrs A's condition deteriorated rapidly, the on-call house officer was paged at 9.30pm and 10.00pm. When the house officer did not attend (she eventually arrived at 11.00pm), care was not escalated appropriately, as per the MEWS protocol, despite RN E having also called the duty manager. Nursing staff did not call for registrar or senior medical officer review when the house officer did not attend promptly.

194. In my view, the poor documentation and poor communication and handover by hospital staff resulted in a failure to ensure the quality and continuity of services provided to Mrs A. Accordingly, I find that BoPDHB breached Right 4(5) of the Code.

Other comment

195. It appears that the hospital's medical wards were full, with the overflow patients being admitted into surgical wards, as was the case with Mrs A. This is often the case in the middle of winter, and that Saturday was particularly busy.

196. Mrs A's medical review by Dr H was delayed for several hours because he was too busy to see her until 6.45pm. When he did arrive, the nursing staff were apparently too busy to give him a verbal briefing or handover, even though he found Mrs A's condition to be inconsistent with the nursing message he had received by phone (he had been expecting a discharge review). When Mrs A deteriorated rapidly, she did not receive timely review, because the on-call staff were busy elsewhere in the hospital.

197. The staff interviewed by HDC during this investigation (including nursing, junior medical, and consultant staff) all referred to the inadequate level of rostered weekend staff at Tauranga Hospital during the winter months.

198. However, the DHB has stated that "the medical service is reviewing current SMO roster with a view to improve availability of SMOs", and that changes have been made to improve junior doctor cover.

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Recommendations

199. I recommend that BoPDHB:

- review all off-site clinic commitments to ensure that inpatient consultant cover is not compromised;
- complete the review of the APU processes — including consideration of requiring regular nursing presence on ward rounds;
- reinforce the documentation requirements to staff — including completion of the clinical record and fluid balance charts;
- report back on the review of the SMO roster;
- review its MEWS protocol regarding escalation directly to senior or ICU level assessment;
- provide education about MEWS to junior medical staff with reinforcement/reiteration to contact senior clinicians for help with any doubts or concerns, including MEWS levels at which senior review may be indicated;
- send to this Office, by **14 May 2013**, an apology to the family for the shortcomings in Mrs A's care (the apology will be forwarded to the family);
- review and report back on the operation of the new model for acute medicine with regard to weekend cover; and
- report back to HDC, by **30 July 2013**, on the outcome of the above recommendations.

200. I recommend that Dr C:

- send to this Office, by **14 May 2013**, an apology to the family for his shortcomings in the care provided to Mrs A (the apology will be forwarded to the family); and
- review his obligation to supervise junior doctors and registrars, and report back to my Office, by **30 May 2013**, on the actions taken.

201. I recommend that Dr D:

- send to this Office, **14 May 2013**, an apology to the family for his shortcomings in the care provided to Mrs A (the apology will be forwarded to the family);
- undertake a communication skills course;
- undertake a review with his supervising consultant of :
  - — the required standards of medical documentation; and
  - — the communication requirements of a medical registrar with designated consultants, and provide a written summary of the learning outcomes of this; and
- report back to my Office, by **1 July 2013**, on the actions taken with regard to these recommendations.

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Follow-up actions

202.
- A copy of this report with details identifying the parties removed, except Tauranga Hospital, Bay of Plenty DHB and the experts who advised on this case, will be sent to the Medical Council of New Zealand. The Council will be advised of Dr D's and Dr C's names, with a recommendation that it undertake a competency review of Dr D.
- A copy of this report with details identifying the parties removed, except Tauranga Hospital, Bay of Plenty DHB and the experts who advised on this case, will be sent to the Royal Australasian College of Physicians, and it will be advised of Dr D's and Dr C's names.
- A copy of this report with details identifying the parties removed, except Tauranga Hospital, Bay of Plenty DHB and the experts who advised on this case, will be sent to DHB Shared Services and the Nursing Council of New Zealand, and will be placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

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Appendix A — Independent medical advice to the Commissioner

The following preliminary expert advice was obtained from general physician Dr David Spriggs, on 6 April 2011:

"Complaint: [Mrs A]
Your Ref: 10/00855

I have been asked to provide an opinion to the Commissioner on this case. I have read and agree to follow the Commissioner's guidelines for independent advisors. I practise as a General Physician and Geriatrician at Auckland District Health Board and am vocationally registered in Internal Medicine and have been a Fellow of the Royal Australasian College of Physicians since 1993.

I have been asked to comment on the following:

1. *Misdiagnosis by admitting Registrar/Consultant:*
   - *(i) Poor history taking — although [Mrs A] may have been a poor historian (she was hyponatraemic and dehydrated) family members were readily available to clarify facts; vomiting and no bowel motion for four days, she had not walked her usual 8km for four days, husband did not have gastroenteritis, neck lumps had already been investigated by GP and diagnosed as epidermal cysts.*
   - *(ii) Failure to investigate groin lump in a timely fashion, in the context of a patient with persistent vomiting. The family say they were misled by the Registrar that an ultrasound could not be performed at Tauranga Hospital on [Day 6] because they would have to 'get someone in to do it'. [Dr I] (GP) spoke with the Registrar on [Day 6] and writes* 'I understood from him that the possibility of a hernia had been eliminated.' *She voiced her concern to the Registrar that further investigation of the abdomen had not been performed.*
   - *(iii) Assessment of [Mrs A] as being fit for discharge on [Day 6] when a cause for her vomiting, sufficient to have led to dehydration, hyponatraemia and atrial fibrillation, had not been established and there was no obvious response to antiemetic treatment.*
   - *(iv) Failure to exclude an obstructive cause for the ongoing vomiting (initially with plain abdominal X-ray) given her persistent unexplained vomiting and groin lump.*
2. *Failure to place a nasogastric tube to reduce the risk of aspiration and provide symptomatic relief, given [Mrs A's] age and her ongoing vomiting unresponsive to antiemetics.*
3. *Lack of review by the Medical Team, or on-call doctors, over the weekend despite repeated requests and concerns voiced by family members to nursing staff about [Mrs A's] vomiting, abdominal distension and laboured breathing, during the day of [Day 7]. According to [Mrs A's] husband, [Dr H] (on-call house officer) passed by the room at 1630hrs, told the nurses to get more blood tests and did not come back to examine [Mrs A] until 1845hrs.*

HDC

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4. *Failure by [Dr H] (on-call house officer) at 1845hrs and 2020hrs to seek registrar review of [Mrs A] given her new presentation of pneumonia with significant respiratory distress. Misdiagnosed as community acquired pneumonia. His prescription of an oral antibiotic and oxygen via mask was inappropriate given her ongoing vomiting.*
5. *Failure by [Dr L] at 2300hrs to seek SMO review of [Mrs A] given her deterioration (MEWSS score 8 at 2230hrs with oxygen saturation <80% on 6L).*
6. *Inadequate documentation — family (and experts) point to a sparsity of documentation in the clinical notes.*

The discharge summary written by [Dr D] to [Dr I] (GP) was inadequate, giving the impression [Mrs A] was awaiting outpatient review, with no information given regarding the events leading to her death.

I have reviewed the following supporting information:

1. Complaint from [Ms B] […]
2. Response to complaint from BOPDHB (Report to Coroner by [Dr C], […]; Review by [a consultant physician], […]
3. Further response from BOPDHB […]
4. ACC Treatment Injury Report ([two doctors])
5. Response from [Ms B] […]
6. Clinical notes from BOPDHB
7. GP notes and letter supplied to NZ Police

Summary of events:

[Mrs A] was a fit and active 78 year old with the significant previous history of epidermal cysts in the neck. She could usually walk about 8 km. She presented to her GP, [Dr I], on [Day 2] with overnight vomiting. The GP note at that time says that her abdomen was soft, non tender without any masses, bowel sounds were normal and [Mrs A] appeared to be dry. She did however have a '2 inch lump left inguinal area, non reducible, ?hernia, ?other'. [Dr I] arranged for an elective outpatient ultrasound in private and reviewed [Mrs A] the following day. At that stage her blood pressure had dropped a little, but again she was clinically dry and again the abdomen was soft and clinically normal. [Mrs A] was advised to drink lots of fluids however by [Day 5] she had represented with further vomiting at least 2x a day, her pulse had become irregular (clinically this was diagnosed as atrial fibrillation), the abdomen was soft but the lump in the groin was "? slightly bigger".

[Dr I] referred [Mrs A] to the Medical Services at Tauranga Hospital stating that the reasons for referral were: (1) dehydration with ongoing vomiting/cough, (2) new AF, (3) groin lump. [Dr I] also points out that she was a 'difficult historian'. [Mrs A] presented to the Emergency Department at 1311 hours on [Day 5]. She was assessed by the Triage Nurse and given a triage code of 3. She was assessed and clerked by the Medical Registrar [Dr D] at 1420 hours that day. [Dr D] got a four week history of a runny nose and cough with decreased appetite and poor oral intake. He was told that

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over the last 1–2 weeks there had been vomiting 1–2 times a day, the vomitus was of gastric contents. [Mrs A] denied any diarrhoea and the admission notes say 'BO [Bowels open]… normal'. The patient mentioned the lumps in the neck and the left groin. She also mentioned some weight loss which was 'not significant'. The admission clerk goes on to record normal observations but she looked dehydrated, her pulse was irregular and she had a systolic murmur. Abdominal examination is limited to 'Abd soft, BS normal'. There was a 'big lump in L groin [illegible]…soft, well circumscribed, not tender, mobile'. I do not have copies of her blood tests or radiology. She was seen by the Consultant, [Dr C], at 1730 hours. The brief record in the notes of the abdominal examination was 'significant LN on L groin', the abdomen was found to be soft and non tender and the pulse irregular. [Dr C] felt that [Mrs A] probably had an underlying lymphoma and arranged for appropriate tests for this potential diagnosis. He also asked for a biopsy to be arranged of the left inguinal node and he mentioned the need for a CT abdomen 'depending on biopsy result'. [Dr C] does not comment on the cause of the vomiting but felt that [Mrs A] could probably be discharged the following day. The ECG taken at 1525 hours on [Day 5] shows a sinus rhythm with supraventricular ectopy and left anterior hemi-block.

The nursing note from 1615 hours says that [Mrs A] vomited that afternoon and was given some Metoclopramide and she was started on some IV fluids. The overnight nursing report suggests that [Mrs A] was doing well, although she was 'still nauseated'. She was reviewed on the morning of the [Day 6] by [Dr D] when she was said to 'feel better' but was nauseated. There was no indication for oxygen and it was decided that she could be discharged when the nausea settled. The Weekend Plan written on that day reiterated the history that she had been unwell for a month with flu like symptoms, vomiting and a left inguinal lump. Again she was thought to have atrial fibrillation. The nursing note from 1900 hours on the [Day 6] confirmed that [Mrs A] had vomited during that shift and again the overnight nursing report written on the morning of the [Day 7] confirmed further vomiting. By 1000 hours on the [Day 7] the nursing report says 'vomiting persists. Vomiting bile. Given anti-emetics x2 (not helping)', later on in that note time 1430 hours 'there is further vomiting of food stuff'. The nurses had asked [Dr K] to see the patient as soon as she could. The nursing note from 1715 hours said that [Dr H] had reviewed the patient and spoken to her husband. [Mrs A] had opened her bowels 'medium soft'. [Dr H's] note is timed 1845 hours when [Mrs A] had developed a 'productive cough today'. Her saturations had dropped and she had crackles in the right base. He arranged for a repeat chest x-ray which confirmed the right middle lobe pneumonia which he attributed to a 'likely CAP' (community acquired pneumonia), but considered hospital acquired pneumonia. He did not apparently consider aspiration at that stage. By 2120 hours [Mrs A] was requiring a Hudson mask at 6 litres giving her an oxygen saturation of 92% and MEWS score had risen to 5 and by 2200 hours had risen to 6. By 2300 hours [Mrs A] was clearly much more unwell, she was reviewed by the House Officer, [Dr L], who found her severely hypoxic and shocked. As described by 'cold, clammy peripheries'. [Dr L] does not record the vital signs in the notes. The Observation chart records a pulse of 117, Blood pressure 102/50, Oxygen saturation 88% on 15 litres and MEWS=7. At 00.15 on [Day 8] [Mrs A] had a Cardiac arrest. Subsequent investigation and surgery confirmed a diagnosis of incarcerated femoral hernia with

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viable bowel. [Mrs A] subsequently died of her aspiration pneumonia and hypoxic encephalopathy at 16.50 [a few days later].

The letter to the Health & Disability Commissioner from [Ms B] gives a slightly different history, in particular she states that [Mr A] had informed the Admitting Registrar that the lump was a probable hernia and he asked if [Mrs A] could have an ultrasound at the hospital straight away. [Mr A] recalls that the doctor 'told him that this couldn't be done, as they would have to get someone in to do it'. The doctor at that stage had told the family that 'he suspected a blockage of the bowel' and it seems that the admitting registrar was the first to raise the possibility that the lump could be cancerous. The family described continued vomiting during the [Days 6 and 7], and in the letter from [Ms B] on […] also describe abdominal distension 'at no time had [Mrs A's] vomiting settled'. Also in [that letter] they state 'that [Mrs A] had not passed any bowel motions during the four days preceding her admission' and they deny that [Mrs A] had at any time had gastroenteritis. At no stage in the clinical notes do I find any suggestion that gastroenteritis was the entertained diagnosis.

I note from [the consultant physician's] report dated […] that the chest x-ray on admission showed 'no marked/typical findings of intestinal obstruction, in that though (sic) there were a couple of fluid levels in the right hypochondrial region, there was no evidence of gastric dilatation'. I am uncertain whether this was an erect or supine xray nor am I clear as to how much abdominal contents were visible. What is clear is that no radiology of the abdomen was performed until after the cardiac arrest.

[Mrs A's] family state that she was nursed in a 'holding pen' for most of the time until her cardiac arrest. I cannot determine from the clinical notes exactly where this was, it probably was in the assessment and planning unit (APU), however I am uncertain as to the time of transfer from the emergency department to APU and the duration of stay in the APU before being transferred to the ward.

I note that when discussing [Mrs A's] poor prognosis in the intensive care unit, the family recall [Dr C] saying 'we messed up and could have done better'.

The discharge summary sent to the GP, authorised by [Dr D], is that prepared in advance when it was expected that [Mrs A] was to be discharged after a couple of days. The only amendment is the addition of 'Deceased' to the discharge status.

Advice to the Commissioner

1. **Missed diagnosis.** There is no doubt that the working diagnosis during the early part of [Mrs A's] admission was incorrect. The doctors had a clear indication that the major problems were vomiting and a lump in the groin. It is suggested that the admitting registrar considered a bowel obstruction as a possible diagnosis yet no diagnostic tests were performed. The combination of this symptom and sign would reasonably be expected to suggest to a competent physician, bowel obstruction with hernia. Hernia being responsible for about 10% of small bowel obstruction. I acknowledge on admission that the bowel sounds were normal and the abdomen not distended however, abdominal distension is not invariable with

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small bowel obstruction and there was no repeat examination of the abdomen after the initial few hours despite continuing vomiting. I believe that there were fluid levels visible on the chest xray. Despite a phone call from the GP, [Dr I], the team once more failed to consider bowel obstruction as a diagnosis. Indeed it seems that [Dr I] was fobbed off being told that 'the possibility of a hernia had been eliminated'. The family say that she had not opened her bowels for four days and the abdomen became distended. It seems that the clinicians continued to hold onto the initial diagnosis despite increasing evidence that it was not tenable.

As said in my report to the Commissioner in 2010, Number 09/02089: 'Such cognitive errors are common, in one study contributing to 32% of all diagnostic errors (Schiff, *Arch Intern Med* 2009; 169: 1881–1887). Premature Closure, which is the failure to consider other possibilities once an initial diagnosis has been made, is probably the commonest type of cognitive diagnostic error (Graber, *Arch Intern Med.* 2005;165:1493–1499). It may also be that the clinical team's diagnostic reasoning had become fixed…This "Anchoring Heuristic" is a common source of diagnostic error (Scott, *BMJ* 2009;338:b1860).'

While this diagnostic error may not have been made had [Mrs A] been admitted under the surgical service, I think it is expected that the Physicians should have considered a bowel obstruction secondary to hernia in their differential diagnosis. In no way should the route of the admission of a patient limit either the investigations or diagnoses that should be applied. This is acknowledged in the letter from [the CEO] of […]. Had the Physicians even considered bowel obstruction, then I have no doubt they would have asked for an urgent surgical opinion.

2. **Failure to place a nasal gastric tube**. Had the diagnosis of bowel obstruction been made earlier, I have no doubt that NG tube placement would have happened immediately. The placement of such tubes on medical wards is relatively unusual; however, all wards should have access with staff with skills to place such tubes. The reason why this was not done in this case was that the diagnosis wasn't made. Indeed there is no suggested diagnosis of the cause of vomiting. Most 'medical causes' of vomiting do not require NG tube placement. This issue is identical to that raised in case 09/02089.

   In view of her age and deteriorating general condition she was clearly at risk of aspiration pneumonia. This was not considered the likely cause of pneumonia when she was assessed by the house officer at 20:20 on [Day 7]. I know of no data that suggest that placement of the NG tube would have prevented the aspiration but it is very likely that it would have relieved some of her symptoms.

3. **Lack of review by medical team.** [Mrs A] was seen and assessed promptly on admission by the registrar and consultant. She was reviewed by the registrar the following morning. On that occasion the registrar did not however examine her abdomen. She was not reviewed again by medical staff until the Friday evening at 18:45 when she was already developing signs of pneumonia. She was discussed

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with the registrar at 23:00 hrs on [Day 7]. It is not clear what information was given to the registrar however his advice suggests that the management problem was of community acquired pneumonia with respiratory failure. I also note that [Dr H] was asked to see [Mrs A] at about 14:30 but did not get to see her until 18:45 on [Day 7].

In the middle of winter, our public hospitals are extremely busy. Weekend staffing is a persistent problem (see case 05/11908). It is not acceptable that access to important radiology and senior medical opinions is so restrictive that patients come to significant harm. The letter from [the CEO] of […] states that 'changes have been made to improve junior doctor cover. These include rostered emergency department senior medical officer cover being extended until 23:00 7 days per week.' It is also important to stress that junior doctors must feel that access to a senior opinion is readily available and they should be encouraged to seek senior advice when they recognise that patients are declining unexpectedly.

4. **Failure by [Dr H] to seek registrar review — see 1 above.** As the doctors believed they were treating a community acquired pneumonia, the attempt to initiate BIPAP may have been appropriate. However given her ongoing vomiting, clearly this attempt was doomed.

5. **Failure of [Dr L] to seek SMO review**. I am uncertain as to the protocols at Tauranga Hospital for escalating the care of patients. The MEWS score started to deteriorate at 23:00 on [Day 7]. On the back of the early warning score sheet, there are instructions that should the score deteriorate the nurses should 'call for help or advice immediately' if the score is greater than or equal to 4. By 23:00 on the [Day 7] the score was 5 and reached a maximum of 8 within about 2 hours. This should have prompted the nursing and junior medical staff to call for senior assistance at that stage. I believe that this is the purpose of such early warning scores. The reluctance of junior doctors to ask for senior advice is endemic in the New Zealand system (see case 05/11908). I am not sure what written or verbal instructions were given to House officers at Tauranga during their orientation. The management of such patients is a team effort and I would hope that Senior Nursing staff would feel empowered to seek senior doctor review when the junior medical staff are seen to be struggling. I am not sure what the protocols in Tauranga are in the eventuality.

6. **Inadequate Documentation**. The letter from [Ms B] challenges some of the information recorded in the notes and other documentation. I am not able to determine which accounts are correct. However, the medical documentation is inadequate. There is no evidence that the clinical team reviewed any aspects of the history with the family despite their ready availability and the difficulty [Mrs A] had in giving a coherent history herself. The history is cursory and the diagnostic reasoning is not explained. There is no proposed diagnosis of the vomiting. After 17:30 on [Day 5] there is no recorded abdominal exam until after the cardiac arrest. I think it likely that the poor documentation reflects inadequate care and

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attention to detail. One example of this would be the diagnosis of atrial fibrillation when the ECG clearly shows sinus rhythm.

I note that the discharge summary authorised by [Dr D] is clearly incorrect and inadequate.

Additional note. While I have not been asked to comment on the family's recollection of [Mrs A's] stay in the 'holding pen', this issue has received a lot of attention from the Ministry of Health.

Their review (http://www.health.govt.nz/publication/recommendations-improve-quality-and-measurement-quality-new-zealand-emergency-departments) outlines the evidence that prolonged stays in ED are detrimental. I cannot determine how long [Mrs A] spent in the Emergency department and what the status of the 'Holding pen' is. Timely transfer of patients to areas where there is appropriate nursing and medical expertise is beneficial to patients and may have gone some way to preventing the tragic outcome for [Mrs A].

Recommendation

My considered opinion is that the care provided by the Bay of Plenty District Health Board is likely to have been suboptimal. The clinical assessment by [Dr C] and [Dr D] is also probably suboptimal. I am unable to make any firm recommendations about the care delivered by [Dr H] and [Dr L] as it is not clear what instructions they have been given with respect to escalating clinical problems when they are struggling. It may be that [Dr H] failed to assess [Mrs A] adequately.

Particular issues for the DHB are related to staffing over weekends, support for junior doctors, access to diagnostic services out of hours and timely transfer out of the emergency department and/or 'holding pen'. I am also uncertain as to their mechanisms for responding to such complaints and their communication with the family, once such complaints were received.

It is probable that the standard of care given by [Dr D] and [Dr C] falls significantly below that which would be expected by their peers. This departure may be considered of moderate severity.

Should you wish any further advice on this subject, please do not hesitate to contact me.

Yours sincerely

David Spriggs, MBChB, MRCP(UK), FRACP, MD
Physician, General Medicine
Auckland District Health Board"

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Further advice received from Dr Spriggs on 17 January 2012
"Complaint: [Mrs A]
Your Ref: 10/00855
I have been asked to provide further expert advice to the Health & Disability Commissioner on this case. I have read and agreed to follow the Commissioner's Guidelines for Independent Advisors. I practise as a General Physician and Geriatrician at Auckland District Hospital and am vocationally registered in Internal Medicine and have been a Fellow of the Royal Australasian College of Physicians since 1993. I have no conflict of interest to declare with regard to this case.

I have been provided with supporting information as outlined in my report of 1st April 2011 and in addition I have been provided with the following:

1. List of information requested from BoPDHB, and BoPDHB response, 4 July 2011 (pages 279–512)
2. Response from [Dr C], 27 June 2011 (pages 513–520)
3. Letter from [Dr C's] lawyer), 23 August 2011 submitting an 'expert report' from [a cardiologist] (pages 521–576) with attachments (pages 616–733)
4. Interview notes with [Dr C], 28 September 2011 (pages 577–584) with attachments (pages 606–615)
5. Interview notes with [RN G], 28 September 2011 (pages 585–590)
6. Interview notes with [RN F], 28 September 2011 (pages 591–592)
7. Interview notes with [RN E], 28 September 2011 (pages 593–596)
8. Phone record of interview with [Dr H], 9 November 2011 (page 597)
9. Responses from [the] family, 11 November 2011 (pages 599–602)
10. Phone record with [Dr D], 9 November 2011 (pages 603–605)

I have been asked to advise on the following:

The appropriateness of medical care provided to [Mrs A] from the time of her admission until transfer to ICU.

The appropriateness of [Mrs A] being cared for in APU, rather than on a general ward.

And advise specifically on the standard of care provided by each of [Drs C and D], including the appropriateness of oversight of [Dr D] by [Dr C], in relation to [Mrs A's] care.

I refer the Commissioner to my original report dated 1st April 2011. This report is subsequent to that document and I will not reiterate what I have already stated.

Response from [Dr C] from 27th June 2011
[Dr C] states that he began his afternoon admission ward round at 1600 hrs. He had 11 patients to see. He got to [Mrs A] at about 1730 hrs and the clinical history and signs were presented to him by [Dr D] who had clinically examined [Mrs A] and found her to be slightly dehydrated and found some lumps in the posterior part of the neck and the 2cm non tender mobile mass in the left groin. [Dr C] went through the history with

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[Mrs A] and then proceeded to examine her. The record of the history taken by [Dr C] is limited to 'Hx noted. Just had some supper.' The examination revealed a soft non tender abdomen, there is no clinical assessment of her volume status, no record of bowel sounds although [Dr C] states that the bowel sounds were normal. He also says there were no features of obstruction. There were some very small nodules on the back of her neck and the swelling in the left groin which was firm and non tender. He says that he reviewed the chest x-ray, this review is not recorded in the hospital notes. He felt that [Mrs A] was not critically ill and further investigations could wait until the following Monday. Some of these investigations had been arranged by the GP.

Had [Dr C] thought that imaging was indicated, he states that there was no difficulty getting further imaging if required urgently, but as this was not considered to be an urgent situation he did not request it. His working diagnosis and assessment on the evening of [Day 5] was that [Mrs A] probably had a malignancy: either a lymphoma or an intra-abdominal malignancy. This was based on the long history (one month) of a lump, recent weight loss, abnormal liver function tests and an enlarged lymph node. He then states that the vomiting was related to intra-abdominal pathology but does not explain his clinical reasoning here, except that he thought that there was no obstruction. This was the last contact that [Dr C] had with [Mrs A].

The following morning he was rostered to be [at the monthly clinic]. About the middle of the day he had phone contact with his registrar who said that [Mrs A] had not been discharged as she had not wanted to go home and [Dr D] 'did not express any concerns over her condition'. [Dr C] goes on to state that he is often given junior registrars, [Dr D] had only been working for him for about a month at this time, as he had started work at BOPDHB as a registrar [in mid 2010]. [Dr C] is considered to be accessible, readily available and non-threatening. He explains that the DHB expects him to be [at the clinic] at the same time as providing ongoing supervision for junior registrars in Tauranga. He has a high clinical workload of approximately 1000 inpatients per annum as well as 4 outpatient clinics per week. He also states that he had asked the DHB to change his [outpatient clinic] commitments as he recognised it interfered significantly with the supervision that he was required to provide for registrars in Tauranga.

[Dr C] apologises to [Mrs A's] family for failing to make the diagnosis of incarcerated hernia. Contributing factors to this diagnostic error were that he only saw her once and did not have an opportunity to review her the following day as he was [at the clinic]. He was also dependent on the information from his registrar and he was not made aware of [Mrs A's] deteriorating condition. I suspect that it is probable that her condition was not, at that stage, declining or, at least, a junior registrar did not recognise the decline. [Dr C] therefore felt that the planned investigations the following Monday were appropriate.

[Dr C] recognises that the differential diagnosis was not wide enough and acknowledges that he looked at her with 'physician's eyes'. His personal experience with incarcerated hernia is limited to that as a surgical intern 30 years ago and I absolutely accept that this presentation was not classical of an incarcerated hernia with acute surgical abdomen. [Dr C] feels that there were many opportunities to

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reassess [Mrs A] over the subsequent weekend and the diagnosis of incarcerated hernia was not made clinically by any of these other doctors. He also states that his comment to the family, 'we messed up and could have done better', was an acknowledgement that the medical profession had failed in this case and not that 'I was the only one involved in her care that could have made different decisions at different points in time'.

As a result of this case the following changes have been instituted:

1. The day of the week of visits to [the clinic] has been changed.
2. There is ongoing review of differential diagnosis by myself.
3. He has also recommended improved communication between the Departments of Medicine and Surgery.
4. The weekend workload is shared between two consultants to improve supervision of junior staff.
5. Further encouragement of junior staff to contact more senior clinicians.

Interview with [Dr C] 28th September 2011

[Dr C] has responded openly and constructively in this interview. His views are similar to that expressed in his written response above. He does however acknowledge that had he been made aware that the GP was worried about a hernia his assessment 'would have been very different'. He also states that had the family been available the history may have been clearer. He acknowledges that he did not see the GP's letter. Although clinical practice is variable it is certainly not universal practice for physicians to review the referring GP's letter and we often rely on the registrar's synthesis. [Dr C] has now changed his practice to always reading the GP's letter. He also expected the registrar to talk to the family the following day.

On [Day 6], he was dependent on the information given to him by [Dr D] and there is no indication that [Dr C] was made aware of any concerns apart from the fact that [Mrs A] was staying in hospital. [Dr D] did not relay to [Dr C] any concerns expressed by the GP about a hernia. It is possible that that conversation had not taken place by the time [Dr D] and [Dr C] had a telephone conversation on [Day 6]. Subsequently [Dr C] talked to his registrar about this. [Dr D] replied 'I don't take any notice of what the GP writes', or words to that effect. [Dr C] states that [Dr D] was a very junior registrar but there were no major concerns about his expertise and clinical judgement. [Dr C] reiterated his concern about the shortage of medical staff at weekends. He confirmed that the changes to the timetable had been actioned such that he is not [at the clinic] the day after his acute round. He does not however state that a similar situation doesn't happen to other Senior Medical Officers supervising junior registrars.

…

[This section has been removed as it is not relevant to the opinion.]

…

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Telephone interview with [Dr H] — 9th November 2011
[Dr H] was acting as a house officer looking after [Mrs A]. He had an extremely busy day on [Day 7]. He had gone to see [Mrs A] expecting her to be discharged, [Mr A] was not present. His clinical assessment was that she had pneumonia, she was too unwell to go home. He believed the registrar was going to review [Mrs A], however 'he was also very busy that day'. [Dr H] handed over [Mrs A] to the night house officer.

Interview with [Mrs A's] family — undated
They state that [Mrs A] was vomiting frequently 'every 15–20 minutes on the Friday' and that they were emptying the containers themselves. They had not been given any instructions about recording the quantity or frequency of the vomit. On [Day 6] some family members talked to [Dr D] and they are sure that they told him that the lumps in the neck had been biopsied and were not cancerous. At that stage, [Dr D] talked about a blockage in the bowel and 'about how [Mrs A's] stomach was swollen'. The family are also sure that the possibility that [Mrs A] had a hernia was discussed with [Dr D] around the middle of the day on [Day 6]. It was felt that [Dr D's] communication in English was 'easy to understand'. 'His attitude, however, was that you would tell him something and he didn't listen — he repeated something completely different back.' The family state that [Dr I] ([Mrs A's] GP) had been told by [Dr D] not to interfere and 'blew her off' telling her 'they knew best'.

Telephone interview with [Dr D] — 9th November 2011
[Dr D] acknowledged that this incident 'happened so long ago that he can't remember the details of what he said or anything, although he remembers the case vividly as it was shocking to him at the time'. He was aware the GP had queried a hernia in her referral letter, but 'we go with our clinical judgement as to what to investigate'. He acknowledges that a mistake was made. He says that he examined her belly 'five times and on each occasion it was soft and non tender'. Later in the interview he states 'we never really considered hernia' and does not remember telling the family about possible bowel obstruction. With regard to the missed bowel obstruction he states 'how can 7 doctors all have been incompetent?' In fact [Mrs A] had her abdomen examined by only 3 doctors before she arrested. The first was her GP who queried a hernia, the second by [Dr D] himself and the third by [Dr C]. Post-arrest the anaesthetic registrar does not record abdominal examination but does question bowel obstruction as a cause for the cardiac arrest. The next examination of the abdomen is on [Day 9] by [another doctor].

Additional comment. [The consultant physician] in his report on […] states no post mortem examination was performed. I have now seen the Autopsy report by [Dr …]. The relevant findings are described by [the cardiologist]. They support the view that [Mrs A] died of Aspiration Pneumonia.

OPINION:

1. [Mrs A] was cared for in the Medical Assessment and Planning Unit (MAPU). She was admitted there at 1330 hrs on [Day 5] and discharged to [the surgical ward] at 1900 hrs on [Day 7]. [This] is a surgical ward that takes medical overflow patients. She did not spend time in the Emergency Department. The

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MAPU has the status of an inpatient medical ward, however it is set up for fast turnover and the goal is that patients should not spend longer than 36 hours in this unit. Inevitably in a hospital which is very busy in the middle of winter such a timeframe is frequently exceeded and I do not believe that her prolonged stay in MAPU was a significant contributing factor to her poor outcome. I do however consider it possible that the high turnover and fast pace of MAPU meant that [Mrs A's] family felt that she was in a 'holding pen' and observation of the frequency of vomiting was incomplete as the family were helping.

2. During the subsequent enquiries [Dr C] has behaved professionally and responsibly and acknowledged his regret at the fatal outcome for [Mrs A] and her family. He saw [Mrs A] once and with limited information (she could not give a coherent history and he did not see the GP letter). He came to a diagnosis that was, at that stage, unlikely and eventually found to be incorrect. While he has had no experience of femoral hernias in his practice as a specialist physician, he could reasonably have been expected to consider this as a diagnosis with any patient admitted with vomiting and a lump in the groin. I believe most of his peers would consider this oversight to be indicative of a suboptimal standard of care. The following day he had no chance to review [Mrs A] as he was rostered on the other side of Bay of Plenty. He depended on his registrar to give him appropriate information and there is no reason to suggest that any colleague in a similar situation would have behaved differently than he did on [Day 6]. I believe his deviation from an appropriate standard of care would be considered mild by his colleagues.

3. [Dr D] was practising as a junior registrar within 6 weeks of starting in this role on an extremely busy day. His initial assessment of [Mrs A] did not take into account the GP's history and his failure to acknowledge the GP's expertise and suggestion the following day contributed greatly to the diagnostic error. He also failed to give [Dr C] full information when presenting the case to him on the evening of [Day 5] as he did not indicate the GP's concerns as expressed in her referral letter. On [Day 6] his assessment was cursory, he failed to examine the abdomen of a lady who presented with vomiting and abdominal lump and he failed to communicate the concerns he had with his supervising consultant over the phone. He did not take into account the concerns of the family. His attitude to the GP's implied diagnosis was inappropriate. He had also failed to correspond appropriately with the Health & Disability Commissioner. [Dr D] was in a difficult position on [Days 5 and 6], I believe that his peers would feel that he had deviated from an appropriate standard of care and that his conduct would be viewed with moderate disapproval by his peers. I acknowledge that he was a very junior registrar who was busy and poorly supervised. He was trained overseas and may have been unfamiliar with standards of practice in NZ and the role of the HDC. I trust that he has been supported by BOPDHB.

Bay of Plenty District Health Board failed to provide an appropriate working environment in that there were excessive numbers of patients for a junior registrar to assess. His senior supervision on [Day 5] was appropriate, however

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the following day it is clearly inappropriate that such a junior registrar be supervised over the telephone by his consultant. I also note that the failure by various doctors to examine [Mrs A's] abdomen despite ongoing vomiting suggests a work environment that was excessively pressured. While I note the change in weekly timetable for [Dr C], there is no assurance that similar rostering problems are not happening for other physicians or in other services. [The CEO], in his letter of […] has stated that there has been an increase in Emergency Department senior medical officer cover. He also states 'the medical services is reviewing current SMO roster with a view to improve availability of SMOs'. There are no details about how this review has been conducted or the outcome. I believe Bay of Plenty District Health Board failed to provide an appropriate standard of care and that this departure from the standard is of moderate severity.

I recommend the HDC confirm with the DHB what changes have been made to (a) rostering of SMOs off site and (b) staffing in medicine, especially at weekends (that includes junior doctors as well as senior doctors).

I commend [Dr C] on the changes made to his personal practice and I hope that the DHB will positively respond to his further suggestions of improvement.

While I acknowledge that the MAPU is for medical patients it is not clear what the route of admission of surgical patients is to the hospital and I think it important to ensure that the medical and surgical services at Bay of Plenty District Health Board work co-operatively and collegially. While there are clear advantages in separate pathways for medical and surgical patients it would be disastrous if the improved processes resulted in patients being unable to receive appropriate specialist attention irrespective of their route of admission.

Should you wish for any further assistance in this matter please do not hesitate to contact me."

Clarification from Dr Spriggs, 20 August 2012

HDC asked Dr Spriggs to clarify whether the reference in his advice dated 17 January 2012 to a "suboptimal standard of care" (in relation to the failure to include hernia as a differential diagnosis when he assessed [Mrs A] on the [Day 5] ward round), represented a mild, moderate, or severe departure from expected standards. Dr Spriggs was also asked to clarify whether his reference to a "mild deviation from an appropriate standard of care" related to [Dr C's] reliance on the registrar, or the misdiagnosis/lack of differential diagnosis.

Dr Spriggs responded:

"I would consider the failure to consider hernia in the differential diagnosis to be a moderately severe departure from expected standards of care, for the reasons given in my report.The discussion with the Registrar was usual practice at the time and I do not think many other physicians would have done differently. It was, however, inadequate and therefore the departure from expected standard should be considered of mild degree only."

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Appendix B — Independent nursing advice to the Commissioner

The following expert advice was obtained from Ms Jane Lees, nurse advisor, on 20 April 2011:

"Response to request to provide expert advice
([Mrs A])
Your ref 10/00855

Response prepared by Jane Lees RGN, PgDipHSc, MN(hons) 7/4/2011

Thank you for the opportunity to review the clinical record of [Mrs A].

You have requested that I provide an opinion from the information available whether or not there are concerns about the care provided by the Bay of Plenty District Health Board or its nurses, which require formal investigation.

I have thoroughly reviewed the clinical record and make the following response in regards to the nursing role.

Documentation

• The nursing documentation from [Days 5-7] is sparse. It is not comprehensive or standardised and does not follow internationally recognised documentation process such as ISOBAR. It lacks depth and substance in particular in the area of the nursing actions that were or were not completed in response to the presenting clinical picture of [Mrs A].

• The Modified Early Warning Score (MEWS) indicated a clinical decline however it is unclear from the documentation the urgency of actions that was taken in regards to the escalation of the increased MEWS.

• The fluid balance chart is poorly completed and does not contain all relevant information or match the clinical documentation and family experience.

Comprehensive nursing assessment

• The initial nursing assessment on admission to APU is incomplete and could have some relevance for example — elimination — bowel — continent is ticked but there is no information entered in the section that asks any recent changes therefore it is not possible to know if this question was asked. The family state that there had been changes in the bowel motions over the four days leading to admission, which is relevant if considering a differential diagnosis of bowel obstruction.

• [Mrs A's] clinical picture presented by the family does not relate to the clinical notes, for example the frequency of [Mrs A's] vomiting as reported by the family.

• The family report that [Mrs A's] 'stomach area seemed to be enlarged' they claim to have reported this to the nurses but there is no nursing documentation to support this.

You have requested that I state if I believe any nurse did not provide an appropriate standard of care. The lack of comprehensive nursing documentation from admission to and transfer out of APU regarding the assessment, care planning and care delivery for [Mrs A] is significant and a moderate risk.

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Nursing has a vital role to play in supporting and advocating for patients with other health care professionals by completing comprehensive clinical decision-making based on relevant accurate clinical information. I think it would be pertinent to interview the nurses involved in [Mrs A's] care to ascertain the level of information sharing that did occur and whether or not oral communication between the various clinicians was anymore comprehensive than the written. The family have submitted a written report that states their concern regarding [Mrs A's] clinical condition they state they reported their concerns to the nursing staff however there is little evidence that these concerns were acted upon.

It would also be worth investigating if the nurses requested or felt a surgical review was required.

If you require any further information through more targeted questions please do not hesitate to contact me."

Further nursing advice received from Ms Lees on 7 February 2012

"Thank you for the further opportunity to review the case of [Mrs A].

You have requested that I provide an opinion on the appropriateness of nursing care provided to [Mrs A] from admission until her transfer to ICIJ.

The interviews provided from the nursing staff caring for [Mrs A] have been thoroughly reviewed as has all documentation included. As requested I have focused on documentation, assessment accuracy of MEWS scoring, continuity of care and communication between nursing staff other providers and the family.

The nursing interviews offer a little more insight into the care [Mrs A] received than previously determined through the clinical record.

The RNs are however clear that improvement to care delivery could be made and it is heartening that clinical practice, process and documentation standards have improved and changed as a result of this case.

As stated there is still sparse information, as a reviewer I can certainly see practice issues especially in regards to communication in particularly between the medical and nursing staff. I have highlighted some examples that are of concern.

Handover practices between all disciplines appear to be inconsistent. They are flawed and offer risk when the nurse is relying on written information that is not of a high standard (as stated in several of the interviews).

Nurses allocated to patients do not consistently attend medical ward rounds.

Bedside nursing handover would offer a comprehensive and consistent approach and has been proven to improve quality of communication between nurses at shift change as it also involves the patient and their families should they be present. Consistent nursing presence on the medical ward rounds with a process to share relevant information to the nurse allocated the patient should be considered.

I note that the family felt they 'only saw a nurse every hour or hour and half'. Prescribed hourly or half hourly rounding following a script is one way that nurses can ensure that they are supporting the patients and their families, clear

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documentation of the event also puts halt to any assumptions such as the frequency and interaction a nurse has with the patient.

There is a hospital wide approach to the training in the MEWS process. The nurses caring for [Mrs A] have in the most received training.

MEWS scores appeared to be documented accurately.

The issue was the escalation and actions taken or not taken when the MEWS score indicated there was clinical decline noted.

[RN E] states she felt 'unsupported and that things were not happening quickly enough'. She felt a more senior doctor should have seen [Mrs A] however called the house officer when the MEWS score was 5 the doctor was slow to respond and the duty manager was contacted. She believes that following this experience she would now act differently.

It would be pertinent to understand what are the options open to [RN E] and her colleagues in her department; she needs to feel supported and valued in her work place so that correct actions can be taken for her allocation of patients. Professional supervision, mentorship and peer review are vital to ensure nurses remain healthy and supported, does such a system exist in the APU department for its nurses. What part did the most senior nurse on the shift have to play when [RN E] was feeling unsupported.

The doctor was bleeped at 1000 but did not see [Mrs A] until several hours later it is unclear if any follow up of the time waiting occurred or if any escalation to the senior nurse was made.

The quality of the documentation was reviewed in the original investigation and was found to be inadequate and inconsistent the nursing interviews further confirm this to be so.

Subsequent to this incident the nursing team have stated that there have been concerns in the continuity of care, communication and documentation and have taken some actions to make changes to the way that they are caring for patients. However these changes need to be system wide and not just adopted by those who were involved in [Mrs A's] care.

I am of the opinion that from a nursing perspective systematic issues led to poor communication, these issues are a MILD DISAPPROVAL in relation to the nursing involvement of [Mrs A's] care.

Adoption of process that recognises the importance of clear concise nursing documentation, team work, communication between professions and improved handover strategies should be adopted. Support for nursing staff that feel unsupported should be addressed. Rigorous audit processes need to be implemented to ensure that comprehensive documentation, communication tools and handover processes are maintained to a high standard.

If you require any further information through more targeted questions please do not hesitate to contact me."

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